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THE SI-HIA LANGUAGE

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THE SI-HIA LANGUAGE,

A STUDY IN INDO-CHINESE PHILOLOGY.

BY

BERTHOLD LAUFER.

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INTRODUCTORY.

"After you have travelled thirty days through the Desert, as I have described, you come to a city called Sachiu, lying between north-east and east; it belongs to the Great Kaan, and is in a province called Tangut. The people are for the most part Idolaters, but there are also some Nestorian Christians and some Saracens. The Idolaters have a peculiar language, and are no traders, but live by their agriculture." Thus MARCO POLO opens his chapter on the Great Province of Tangut.[1] According to YULE, the "peculiar language," as Neumann supposes, may have been Tibetan; while, on the other hand, he was inclined to think that the language intended by Polo may have been a Chinese dialect. At present we might confidently say that Polo certainly visualized the Si-hia language, and, judging from the fragments of it now at our disposal, and to be discussed on the pages to follow, that he was quite right in styling the language "peculiar." It is in fact a peculiar language, not, however, plainly Tibetan, as believed by Neumann and several successors,[2] but an independent and peculiar idiom within the great family of Tibeto-Burman languages, fundamentally evincing decided affinities with the Lo-lo and Mo-so group.

In designating the language as Si-hia I follow the established convention, although it is not logical to speak of a Si-hia language or people, as Si Hia 西夏 is a purely Chinese term pertaining to the dynasty of the kingdom. The people were descendants of

[1] *The Book of Ser Marco Polo*, ed. of YULE and CORDIER, Vol. I, p. 203.

[2] DEVÉRIA (*L'Ecriture du royaume de Si-hia ou Tangut*, p. 28 of the reprint from *Mémoires présentés par divers savants à l'Académie des Inscriptions*, first series, Vol. XI, pt. 1, Paris, 1898) designated the language as possibly being a Tibetan dialect. M. G. MORISSE (*Contribution préliminaire à l'étude de l'écriture et de la langue Si-hia*, p. 37, reprint from *Mém. prés. par divers savants à l'Académie des Inscriptions*, first series, Vol. XI, pt. 2, Paris, 1904, pp. 313—379) concluded from certain analogies of syntax that "la langue tangoutaine était apparentée au tibétain."

the Tang-hiang 党項, in particular of the *gens* T'o-pa 拓拔, forming one of the eight *gentes* of that tribe.[1] They were accordingly members of the Tibetan family. The word *Tang* seems to have resulted in the Mongol name *Tangut* (*-ud* being the ending of the plural), employed by Marco Polo and Rashid-eddīn.[2] The term *Tangut*, however, antedates the Mongol epoch, for, as already observed by Devéria,[3] it is found as early as the year 734 in the Sino-Turkish inscription of Kosho-Tsaidam.[4]

A considerable literature must have been extant in the Si-hia language. Chinese books were eagerly sought in the kingdom, and were not only brought there from China proper, but were also printed in the country itself, sometimes even at the initiative of the rulers of the Si-hia dynasty.[5] Confucian literature was cultivated under the reign of Li Jên-hiao (1140—93), when schools were erected after the Chinese model in all departmental and district towns, swelling the number of students to three thousand. All children of the royal family, from their seventh to their fifteenth year, were obliged to frequent a college installed in the palace. The king and the queen did not think it beneath their dignity to impart instruction there. In 1145 a learned academy was founded after the Chinese model. In 1150 Wa Tao-chung was appointed professor of Chinese and Si-hia literatures; he translated the Analects of Confucius, and provided them with a commentary in thirty books.

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[1] See the interesting observations of E. Chavannes, *Dix inscriptions chinoises de l'Asie centrale*, p. 13 (reprint from *Mém. prés. par divers savants*, etc., first series, Vol. XI, pt. 2, 1902, pp. 193—295).

[2] See an interesting note on Tangut, in W. W. Rockhill, *Land of the Lamas*, p. 73; and *J.R.A.S.*, 1891, p. 189.

[3] *L'Ecriture du royaume Si-hia ou Tangut*, p. 21.

[4] Compare W. Radloff, *Alttürkische Inschriften der Mongolei*, I, p. 58; and V. Thomsen, *Inscriptions de l'Orkhon*, pp. 123, 178.

[5] P. Pelliot, *Les documents chinois par la mission Kozlov* (*Journal asiatique*, 1914, mai-juin, p. 504).

Besides, he wrote a treatise on divination. His works, composed in the national system of writing, were propagated in the kingdom. At the time when it was overthrown by the Mongols (1226), Chinese literature was in a flourishing condition, and numerous books were carried away with the booty of the conquerors.[1] In 1154 Li Jên-hiao requested permission from the Kin to purchase from them books relating not only to Confucius, but also to Buddha. The Buddhist Tripiṭaka has been entirely translated into the Si-hia language, and an edition of this translation was prepared in print in 1294.[2] The interest in Buddhism awoke under Li Yüan-hao (1032—48), who procured a collection of Buddhist works from the Chinese Court in exchange for fifty horses. He constructed a monastery and high Stūpas east of his capital, where the sacred canon was deposited. Uigur monks were called to this establishment to study and interpret these texts and to render them into the Si-hia language. The Uigur, a Turkish tribe bordering the Si-hia Kingdom on the west, furnished the missionaries and translators of Buddhism to the Si-hia in the same manner as at a later date to the Mongols. The Saddharma-puṇḍarīka-sūtra translated into Si-hia has been made the object of an ingenious study by M. G. Morisse,[3] who availed himself of a manuscript (incomplete, in three volumes), written in gold on stiff blue-black paper (a style familiar also in Tibet). The Si-hia rulers likewise had annals kept in their language and writing, but no historical works seem to have as yet come to the fore.

The Si-hia system of writing was constructed in 1037 by Li Yüan-hao. It is perhaps the most complicated system ever invented by a human mind,—ideographic, like Chinese, the single characters being

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[1] G. Devéria, *L'Ecriture du royaume de Si-hia*, pp. 23—26.

[2] Pelliot, *l. c.*, p. 518.

[3] *Contribution préliminaire à l'étude de l'écriture et de la langue Si-hia* (*l. c.*).

composed of a bewildering mass of irregular lines, in which no method or principle has as yet been disclosed. Only a small fraction of characters has been read; of others, the meaning only is known, but not the phonetic value. Devéria is presumably right in tracing the origin of Si-hia writing to that of the Khitan, which, on its part, was derived from Chinese script in 920. Apart from books, manuscripts, and scrolls, we have but few monuments of Si-hia culture in the form of lapidary inscriptions, coins, and seals. In the celebrated inscription of Kü-yung-kuan (in the Nan-kʿou Pass, on the road from Peking to Kalgan), dated 1345, four sections are composed in Si-hia, two remaining undeciphered; the two others present the literal phonetic transcription in Si-hia characters of Sanskrit Dhāraṇī. The majority of the latter characters have been identified by A. Wylie [1] and E. Chavannes. [2] It is to the merit of G. Devéria to have established the fact beyond doubt, that the inscriptions in question were really of Si-hia writing, through comparison with an inscription of 1094 erected in the Temple of the Great Cloud at Liang-chou in Kan-su Province, and studied by him in the publication above cited. S. W. Bushell [3] examined twelve Si-hia coins, and succeeded in deciphering the sense of some forty characters, without being able, however, to assign to them their phonetic value. Reproductions of some Si-hia seals have been published in the Chinese journal *Shên chou kuo kuang tsi*, No. 10. King Li Yüan-haọ received from the Chinese Court a plated silver seal on which were engraved four characters, reading, "seal of the lord of the country of Hia" 夏國主印.[4]

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[1] *On an Ancient Buddhist Inscription at Keu-yung kwan* (*J.R.A.S.*, N. S, Vol. V, 1870, pp. 14—44).

[2] *Documents de l'époque mongole, édités par le prince Roland Bonaparte*, Plate X.

[3] *The Hsi Hsia Dynasty of T'angut, their Money and Peculiar Script* (*J. China Branch R. A. S.*, Vol. XXX, 1895—96, pp. 142—160).

[4] *Sung shi*, Ch. 485, p. 8 b.

The only available material for a study of the Si-hia language is a brief manual, unfortunately incomplete, found, together with a large number of other Si-hia books, in 1908, by Gen. Kozlov, in a Stūpa not far from Karakhoto,[1] and published by Professor A. Ivanov.[2] This booklet was prepared by an author of Si-hia descent, Ku-le or Ku-lo (Ku-ro, Gu-ro) 骨勒, with the intention of facilitating for his compatriots the study of the Chinese language. The work, written in 1190,[3] consists of a vocabulary, arranged according to subject-matter, in Chinese fashion, — heaven, earth, man, body, costume, implements, fauna, flora, minerals, nutrition, abstract nouns, measurements, adjectives, verbs, and numerals. Each word is given in Si-hia script (third column); it is accompanied by the pronunciation of the corresponding Chinese word in Si-hia characters (first column), by the Chinese rendering (second column), and by Chinese characters indicating the reading of the Si-hia word (fourth column). Professor Ivanov, to whom we are under great obligation for having rendered this important material accessible, has added a few Chinese, Mongol, and Tibetan words for purposes of comparison, but the real analysis of the language remains to be made. Besides the vocabulary in question, I availed myself of a number of Si-hia words recorded in the Chinese Annals (Nos. 46, 138—142).

As regards the transcription of the Chinese characters reproducing the Si-hia words, Mr. Ivanov is generally correct in what he remarks on this point (p. 1225). I think, however, that Northern Mandarin should be preferred to the Peking dialect. Thus

[1] The ruined town of Karakhoto, first visited and explored by Gen. Kozlov in 1908—09, was investigated again by A. Stein on his recent expedition to Central Asia, with good results: abundant remains of Buddhist manuscripts and prints, both in Tangut script and Tibetan, and miscellaneous records on paper in Chinese, Tangut, and Uigur, were brought to light by him (see his report in *The Geographical Journal*, 1915, pp. 408, 409).

[2] *Zur Kenntnis der Hsi-hsia Sprache* (*Bull. de l'Acad. imp. des sciences de St.-Pétersbourg*, 1909, pp. 1221—1233).

[3] The correct date has been established by Chavannes (*T'oung Pao*, 1910, p. 151).

Si-hia 七吾 ("salt") doubtless is *ts^{c}i-ŋu*, not *ch^{c}i-wu*, and Si-hia 皆 ("gold") is *kie, kiä, k'ä*, not *chieh*. A point chiefly to be noted is that modern Chinese, lacking the sonants, resorts to the corresponding surds in transcribing the sonants of foreign words; while there is every reason to believe that Si-hia, like its congeners, possessed the sonants *g, b, d*. Only close comparison with cognate forms of speech can teach us whether the sonants or surds have to be adopted for Si-hia; and in many cases, this remains doubtful. For example, 芭不 ("daddy") is not to be rendered *pa-pu*, but *pa-bu*, the element *bu* being the same as the diminutive ending *bu* of Tibetan; 則移 ("water"), as shown by linguistic comparison, is *dzei, jei*, not *tse-yi*. Whether *l* or *r* is to be read for Chinese *l*, can be decided solely by comparative methods; even then the decision is not always easy, as *l* and *r* are to a great extent interchanged in Tibeto-Burman. In a single case, Chinese *l* corresponds to Si-hia *n*: 羅 *lo* ("disease"), being identical with A-hi Lo-lo *no*, Nyi Lo-lo and Tibetan *na*, should be read as Si-hia *no*.

The comparative material brought together in elucidation of the Si-hia onomasticon has been arranged on as broad a basis as possible, covering, so far as this can be done at present, the Indo-Chinese languages in their entire range. It is thus hoped that this essay will be interesting, not only to students of Si-hia and Tibetan, but also to those engaged in the pursuit of other Indo-Chinese branches and to philologists in general. It will be seen from the following pages that the Si-hia language is more than an isolated phenomenon of local interest, and that it even has a fundamental value for the understanding of the speech history of the Indo-Chinese family, and in many cases largely contributes to a correct appreciation of its genetic growth. The ethnologist and historian of culture may also find here some new facts of importance, particularly with reference to the utilization of metals and cultivated

plants. It was not feasible, in each and every case, to state the source from which a word has been derived; only in specific cases acknowledgment has been rendered, author's names have been cited in parenthesis wherever it seemed that responsibility must solely rest with them. In general, only well-authenticated material has been adopted, each item being drawn and verified from first-hand sources. It is chiefly to the following works that I am under obligation. My knowledge of the Lo-lo languages is based on the fundamental studies of Fathers P. Vial (*Les Lolos*, Shanghai, 1898; and *Dictionnaire français-lolo*, Hongkong, 1909) and A. Liétard (*Notions de grammaire lo-lo*, *Bull. de l'Ecole française*, Vol. IX, 1909, pp. 285—314; *Notes sur les dialectes lo-lo*, *ibid.*, pp. 549—572, an achievement of principal value on account of the copious comparative vocabulary; *Notions de grammaire lo-lo*, *T'oung Pao*, 1911, pp. 627—662; *Essai de dictionnaire lo-lo français, dialecte A-hi*, *ibid.*, pp. 1—37, 123—156, 316—346, 544—558; *Vocabulaire français lo-lo, dialecte A-hi*, *T'oung Pao*, 1912, pp. 1—42; *Au Yun-nan, les Lo-lo-p'o*, *Bibliothèque Anthropos*, Vol. I, No. 5, Münster, 1913; this work contains a solid grammar of the Lo-lo-p'o dialect, also several texts with translation). Vial and Liétard are the founders of Lo-lo philology, and their phonetic reproduction of the language may be regarded as fairly exact; at any rate, it is infinitely superior to what is offered us in the lists of words haphazardly gathered by casual travellers. I feel the more grateful toward the work of the two fathers, as the present investigation could not have been made but for their efforts, one of my main results being the proof of a close affinity between Si-hia and Lo-lo. The materials of Bonifacy (*Etude sur les langues parlées par les populations de la haute Rivière Claire*, *Bull. de l'Ecole française*, Vol. V, 1905, pp. 306—327; and *Etude sur les coutumes et la langue des Lo-lo et des La-qua du Haut Tonkin*, *ibid.*, Vol. VIII, 1908, pp. 531—558) have also proved

useful. Occasional references have been made to the Lo-lo collectanea of E. C. Baber (*Travels and Researches in Western China, Roy. Geogr. Soc. Suppl. Papers*, Vol. I, 1886, pp. 73—78), and H. R. Davies (*Yün-nan, the Link between India and the Yangtze*, Cambridge, 1909), but only in cases where they offer material not listed by Vial and Liétard. Next to Lo-lo, the language of the Mo-so has proved most important for my purpose. The interesting work of J. Bacot (*Les Mo-so, ethnographie des Mo-so, leurs religions, leur langue et leur écriture*, Leide, 1913) has furnished most of the Mo-so material (with occasional quotations from the work of Davies). M. Bacot's transcription of Mo-so is not made after rigid phonetic principles, but according to the French alphabet. The comparative method, however, brings out the fact that his mode of writing is generally correct. It has, of course, been reduced to the phonetic system adopted by me. It will be noticed that the phonology and vocabulary of Mo-so are closely allied to Lo-lo, and hence to Si-hia, and that even in some cases Mo-so furnishes the sole clew to a Si-hia word. Thus new light falls on the Mo-so language itself. These results, together with other observations on the language, I hope to set forth in the near future. It hardly requires mention that ample use has been made of that admirable linguistic encyclopædia, the *Linguistic Survey of India*, edited by G. A. Grierson, or that B. H. Hodgson's *Essays on the Languages, Literature, and Religion of Nepal and Tibet* (London, 1874), have been laid under contribution for the languages of Nepal, or the Gazetteer of Upper Burma and the Shan States for the Karen dialects. It is regrettable that since Hodgson's day our knowledge of Nepalese idioms has so little advanced; this immense field merits a most serious exploration. Newārī remains the only language of this group of which we possess a somewhat superficial knowledge, thanks to the pioneer labors of A. Conrady (*Das Newārī, Grammatik und Sprach-*

proben, *Z.D.M.G.*, Vol. XLV, 1891, pp. 1—35; and *Ein Sanskrit-Newārī Wörterbuch*, *ibid.*, Vol. XLVII, 1893, pp. 539—573). My acquaintance with Lepcha is founded on G. B. Mainwaring, *A Grammar of the Rong* (*Lepcha*) *Language* (Calcutta, 1875), and *Dictionary of the Lepcha Language*, compiled by G. B. Mainwaring, revised and completed by A. Grünwedel (Berlin, 1898). The majority of Bunan words are derived from the article of H. A. Jäschke (*Note on the Pronunciation of the Tibetan Language*, *J.A.S.B.*, Vol. XXXIV, pt. 1, 1865, pp. 91—100); an exhaustive study of this interesting language would be a primary desideratum and of greatest service to Indo-Chinese philology. Kanaurī or Kanāwarī words are taken from Pandit T. R. Joshi, *Grammar and Dictionary of Kanāwarī, the Language of Kanāwar* (Calcutta, 1909), and from T. G. Bailey, *Kanaurī Vocabulary* (*J.R.A.S.*, 1911, pp. 315—364). The sources of Tibetan do not need specification. The Tromowa and Sikkim dialects are quoted from the important paper of E. H. C. Walsh (*A Vocabulary of the Tromowa Dialect of Tibetan spoken in the Chumbi Valley*, Calcutta, 1905), partially also from G. Sandberg (*Manual of the Sikkim Bhutia Language*, Westminster, 1895). Materials relating to the East-Tibetan dialects, Jyarun and Gešitsᶜa, are derived from the writer's own collectanea made in the field. Words of the Tibetan dialect of Yün-nan are partially due to Father Th. Monbeig (*Bull. de l'Ecole française*, Vol. IX, 1909, pp. 550—556), partially to the book of Davies above cited. As regards the Tᶜai languages, I hold myself under greatest obligation to the work of H. Maspero (*Contribution à l'étude du système phonétique des langues Thai*, *Bull. de l'Ecole française*, Vol. XI, 1911, pp. 153—169); from many another study of this eminent philologist I have derived as much instruction as pleasure (compare *J.R.A.S.*, 1915, p. 757). As to Ahom, I am indebted to the excellent vocabulary of G. A. Grierson (*J.R.A.S.*, 1904, pp. 203—232; and *Z.D.M.G.*, Vol. LVI,

1902, pp. 1—59). Pa-yi words are culled from F. W. K. Müller's study of this language (*T^{c}oung Pao*, Vol. III, 1892, pp. 1—38). Other material relative to the T^{c}ai languages of Yün-nan is drawn from Davies (*l. c.*), G. W. Clark (*Kwiechow and Yün-nan Provinces*, Shanghai, 1894), S. R. Clarke (*Among the Tribes in South-West China*, London, 1911), and in some instances from T. de Lacouperie (*Les langues de la Chine avant les Chinois*, Paris, 1898, used with reserve; this also holds good for d'Ollone, *Langues des peuples non chinois de la Chine*, Paris, 1912). I am further indebted to B. Houghton for his *Kami Vocabularies* (*J.R.A.S.*, 1895, pp. 111—138), his *Southern Chin Vocabulary* (*ibid.*, pp. 727—737), and his *Tibeto-Burman Linguistic Palæontology* (*ibid.*, 1896, pp. 23—55), a first attempt of culture-historical and philological study in the Indo-Chinese field, to which I owe a great deal of inspiration and encouragement; to T. C. Hodson (*Thādo Grammar*, Shillong, 1905; and other monographs quoted in the proper place); and to Sten Konow (*Zur Kenntnis der Kuki-Chin Sprachen*, *Z.D.M.G.*, Vol. LVI, 1902, pp. 486—517). Kachin is drawn upon from H. F. Hertz, *Handbook of the Kachin or Chingpaw Language* (Rangoon, 1895; 2d ed., 1902). It is a matter of course that the standard works of A. Judson, Pallegoix, McFarland, etc., have been consulted for Burmese and Siamese, and that the synthetical studies of E. Kuhn, A. Conrady, H. Maspero, and others, have been duly appreciated. To these and other contributions special acknowledgment is given in every instance.

THE NUMERALS.

In the vocabulary published by Mr. Ivanov we find only the numerals for 1, 2, 4, 5, 8, 10, 100, and 10,000. These numerals, while in general reflecting Tibeto-Burman types in the widest sense of the word, reveal far-reaching deviations from Tibetan proper,

and show that Si-hia is not a Tibetan dialect, but is an independent idiom, which takes its place beside Tibetan.

Si-hia 1, *a* 阿, deviates from the standard Tibetan form *čі-k* (written *gčig*) and *ti-k* (Jyaruṅ *k-ti, k-ti-k*; Bunan *ti*; Lo-lo $t^{c}i$; Burmese *ta*ϑ, spoken language *tīt-ta*; hence *čі-k* seems to be evolved from **t-ši-k*, which is confirmed by Lepcha *ka-t*, Chinese *yi-t*, Milčaṅ and Chuṅ-kia *i-t*; Tibetan *g-čі-g*, therefore evolved from **ga-* or **ka-t-ši-k*).[1] The only western Indo-Chinese language known to me, in which the element *a* appears as the numeral 1, is Aka in Assam.[2] On the one hand, however, the habitat of Aka is so far removed from that of Si-hia, with no missing links discoverable between the two, that a correlation of the two forms, at least for the present, would seem a hopeless venture. On the other hand, Mr. T. C. Hodson, to whom we are indebted for a very important and ingenious study of the numeral systems of the Tibeto-Burman languages, inclines toward the belief that Aka *a* is the survival of fuller forms, like *aka*, *akhet*, *ekhā*, *ākā*, *hak*, encountered in other Assam languages; and traced by him to Indo-Aryan *eka*.[3] Moreover, Mr. Hodson makes the very appropriate observation that "the freaks and fantasies of phonetic growth and decay in this area are such that seemingly identical forms may be evolved out of totally distinct original forms."[4] Whatever the origin of Aka *a* may be, therefore, its ancestry might be entirely distinct from that of Si-hia *a*. It may be suggested that the latter is possibly related to Tibetan *ya* ("one of two things forming a pair, one of two op-

[1] It has not yet been pointed out that Tibetan *čig* is related to Cantonese *čik*, *ček*, Hakka *čak*, North Chinese *čі* 隻 ("single").

[2] A numeral *a* ("one") appears in Miao and Yao of Yün-nan (H. R. Davies, *Yün-nan*, p. 339), classified by Davies in the Mon-Khmêr family. In Mon-Khmêr, however, the typical form of the numeral 1 is *mui*.

[3] *J.R.A.S.*, 1913, p. 320. According to Sten Konow (*J.R.A.S.*, 1902, p. 129), who writes *ā*, Aka *a* corresponds to Meithei *a-mā*, Kachin *ai-mā*.

[4] *L. c.*, p. 335.

ponents"), and possibly to Chepaṅ *ya* ("one").[1] The reason why Si-hia rejected the common type may be explained by another suggestive opinion of Mr. Hodson, "There can be no doubt that the use of the numeral for 'one' as an affix to indicate singularity has led to the disappearance of the original numeral in several cases and the employment of some word of different origin in its place."[2] Unfortunately, it is not known what the suffix of singularity was in Si-hia; but some such factor, as indicated by Mr. Hodson, seems to have been at play in that language.

Si-hia 2, *nöṅ*, *nõ̃*, *noṅ* (or perhaps *loṅ*) 能, is different from the common Tibetan type *ñi*, *ñis* (*g-ñis*, from **ga-* or **ka-ñi-s*; Lepcha *ñat*; Lo-lo and Mo-so *ñi*). The nearest forms of relationship that I am able to trace are Chinese *liaṅ* (Cantonese *löṅ*) 兩 ("both, a pair") and Chuṅ-kia *s-loṅ* (the prefix *s-* presumably being the survival of *sam* of the T^{c}ai group). Perhaps also Hai-nan and Swatow *no* belong to this series. Further relationship may exist with the base *niṅ* of Miju Mišmi, Laluṅ, and Garo Jalpaiguri.[3]

Si-hia 4, *le* 勒, represents the typical base of Tibeto-Burman *le, li, ri, lu*: Burmese *le*, Kachin *ma-li*, Haka *pa-li*, Tauṅtha *p-li*; Kami *ma-li, m-le*; Lepcha *fa-lí* (from **ba-li*), Lušai *pa-li*; Jyaruṅ *k-b-li* (from **ka-ba-li*); Miao-tse *p-lu*, Mo-so *lu*, Chuṅ-kia *s-le*, Lo-lo *š-le*; Tibetan *b-ži*, evolved from **ba-ži, ba-ši*, or **bi-ži*: Bunan *bi* ("four"), the base **ši, si*, being identical with Chinese *sẹ* 四 and T^{c}ai *si*.

Si-hia 5 is handed down to us in the transcription *ku-yü* 骨魚. As the standard type of the numeral 5 in Tibeto-Burman is *ṅa, ṅu*,

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[1] B. H. Hodgson, *The Phœnix*, Vol. III, p. 46; or *Essays on the Languages, Literature, and Religion of Nepal and Tibet*, pt. 2, p. 52.

[2] *L. c.*, p. 321.

[3] Hodson, *l. c.*, p. 322, who justly remarks that the closing *ṅ* may, on further investigation, prove to be only a nasalization. Hence I have added above also the transcription *nõ̃* (see Phonology, § 14).

ńo, we have doubtless to assume the prevalence of the former initial *ń* in *yü* 魚, and to restore the Chinese transcription to Si-hia *k-ńü* or *k-ńu*. An analogous case of transcription occurs in *ku-yü-mo* 骨魚沒 ("heaven"), which in my opinion should be restored to Si-hia *k-ńum*, and be correlated with Tibetan *d-guń* and *g-nam* (see No. 35). As to the prefix *k-*, Si-hia coincides with Jyaruń *k-mu*. The fact that this prefix is the remnant of an independent base with the meaning "five," we may glean from Lo-lo *gha*, Chuń-kia and T^{c}ai languages *ha*; hence Si-hia *k-ńu* appears to have arisen from **ka-ńu*. The second element *ńu* is identical with Chinese *ńu* 五, Lepcha *fa-ńo*, while other languages have the vowel *a*: Burmese *ńa*, Tibetan *l-ńa*, Lušai *pa-ńa*, Mo-so and Gešits^{c}a *wɹ*.

Si-hia 8, *ye* 卅 (possibly also *ya*), again agrees with the typical Tibeto-Burman series, particularly with Dhimal *ye*; Kami *ta-ya*, *te-ya*, or *ka-ya*; Lo-lo *e*; Gešits^{c}a *r-ya*, *va-r-ya*; Jyaruń *v-r-yat* or *v-r-yä-t*; written Tibetan *b-r-g-ya-d* (now sounded *gyat*; *b-* evolved from **va*).

The Si-hia numeral 10 is mysterious. It is transcribed 奄, which Mr. Ivanov renders *yen*, *am*; probably we have to read *an*, *en*. Whatever transcription we may choose, however, this form remains isolated, and defies identification with any type of Tibeto-Burman or any other Indo-Chinese group known to us. The consonantal basis for the numeral 10 is *s*, *š*, *č*, and *t*: Tibetan *b-ču* (from **ba-t-šu*), Jyaruń *š-či*, Lepcha *ka-ti*; Gešits^{c}a *z-ra* (from **si-ra*), and *s-ka* (from **si-ka*) in multiplication; Kami *ka-su*; Siamese *si-p*; Chinese **ši-p*, *ži-p* 十.[1] Owing to the isolation of the Si-hia form, it is justifiable to regard it as a loan-word, perhaps from Turkish *on*.

Si-hia 100, *i* or *yi* 易, corresponds to the Tibeto-Burman base *ya*, with the remarkable modification of *a* into *i* (see Phonology,

[1] For further information see Hodson, *l. c.*, pp. 327–331.

§ 1): Burmese *ta-ya*, Karen *ta-ye*, other Burmese languages *a-ya*;[1] Jyaruń *b-ri-yä*, Gešitsᶜa *r-yo*, *r-ya*, Milčań *ra*, Bunan *gya*, Lepcha *gyo*, Tibetan (written language) *b-r-g-ya*. Si-hia *i*, *yi*, is perhaps preserved in Siamese *roi*, if the latter should have been evolved from **ro-i*, *ro-yi*.

Si-hia 10,000, *kᶜo* 刻, is an isolated form (Tibetan *kᶜri*, *ṭᶜi*; Lo-lo *tᶜi-va*; Mo-so *mö*; Tᶜai group *mün*, *mön*). It is notable that the word is identical with Si-hia *kᶜo* ("foot"), which is reproduced by the same Chinese character (see No. 51). Hand and foot, as is well known, belong to the primitive means of counting; and the words for these bodily parts, as well as for fingers and toes, have left their imprint in the numerals of many peoples.

ANALYSIS OF THE SI-HIA ONOMASTICON.

Group I.

Words of Common Indo-Chinese Type.

In this group are treated words of general Indo-Chinese character, which bear the same or similar features, or a peculiar form in Si-hia.

1. Si-hia *ńo* 我, silver. There is only one metal the designation of which is common to all Indo-Chinese, and that is silver. In the eastern group we encounter Amoy *gin*, Cantonese *ńön*, Hakka *ńyin*, Fukien *ńüń*, Ningpo *ńyiń*, Wen-chou *ńiań*; Siamese *ńön*, Ahom and Shan *ńün*, Black Tai *ńön*, White Tai *ńün*, Dioi *ńan*;[2] Chuń-kia *ńan*, Hei Miao *ñi*, Hua Miao *ñai*, Ki-lao *ñin*. In the western group we have Burmese *ńwe*; Tibetan (written language) *d-ńul* (from **de-ńul*, compare Mo-so *de-gu*), Kᶜams *γ-ńul* (Purig and Ladākhī *š-mul*; *ś-* = Bunan *ši*, "white;" Ladākhī also *mul*), Jyaruń *po-ńi'*, Central Tibetan *ńü-l*, Sikkim and Lhoke *ńü*, Yün-nan Tibe-

[1] *Gazetteer of Upper Burma and the Shan States*, Part I, Vol. I, p. 646.

[2] Compare Maspero, *Bull. de l'Ecole française*, Vol. XI, p. 168.

tan *ńo-l*; Mo-so *ńö*; and corresponding to the last-named we have Si-hia *ńo*, that accordingly stands closer to the western than to the eastern branch of Indo-Chinese.[1] The coincidence of Si-hia with Mo-so, in particular, is notable; and in all probability we have to recognize in *ńo* the base of the word that, with the vocalic variations *ńu*, *ńü*, *ńö*, assumes in Sino-T^{c}ai a suffix *-n*, and in Tibetan a suffix *-l*. In some languages the initial guttural nasal has been transformed into the surd or sonant of the guttural series: Mo-so *de-gu* corresponds to Chö-ko *a-ko* and Lepcha *ko-m*. Tibetan, Bunan, and Kanaurī *mu-l*, Milčaṅ *mi-l* and *mu-l* (parallel to Mi-ñag [*Baḅer*] *mwe*), Murmi *mui*, and Lepcha *ko-m*, in all probability, represent an independent type, which has not arisen from *d-ńul*, but which is formed from the base **mu*, *mi*, with suffix *-l*. This is demonstrated by two facts. First, the Lepcha word *ko-m* consists of the two elements *ko* + *m*, both of which cannot well have been evolved from the same root. Second, we may examine the Mongol-Tungusian languages that have adopted the Indo-Chinese word for "silver." In these, the element *mo*, *mö*, *me*, appears coupled with *ńün*, *ńö*: Mongol *möńün*, Buryat *möńö*, *möńön*, *möńün*; San-č^{c}uan T^{c}u-jen (Rockhill, *Diary*, p. 377) *miengo*; Niüči *meńguwen*, Manchu *meńgun*, Tungusian *meńün*, Gold *muńgu*; Yakut *mańuni* (Tungusian loan-word, that occurs beside the Turkish word *kömüs*). The latter series forms a well-defined group, diverse from what is found in the Turkish and Finno-Ugrian languages: Uigur and Djagatai *kümüš*, Kirgiz *kümüs*, Yakut *kömüs*;[2] Suomi *hopea*, Esthonian *hõbe*, Votyak *opea*, Livonian *öbdi*, Chudian *hobet*; Magyar *ezüst*, Syryän *ezyś*, Votyak *azveś* (probably "white copper;" *-veś* = Suomi *vaski*, "copper"). The Mongol-Tungusian loan-words which must be of ancient date

[1] In other Tibeto-Burman languages, "silver" is expressed by "white:" Nyi Lo-lo *ɜ̀lu* ("white" and "silver"); Li-su *p'u* ("silver"), *pu-pu*, *i-p'u*, and *yu-p'u* ("white").

[2] Radloff, *Wörterbuch der Türk-Dialecte*, Vol. II, col. 1527, 1528.

hint also at the fact that in Northern Chinese, in the same manner as in the south, the word for "silver" might formerly have been *ńün* or *ńön*, until it was turned into the modern form *yin*.[1] They further demonstrate that besides *ńün*, *ńön*, an element *mo*, *mö*, with the meaning "silver," appears to have existed within the northern or north-western range of Indo-Chinese, and the survivals of this ancient word we encounter in Tibetan and Kanaurī *mul*, Murmi *mui*, Lepcha *ko-m*.

2. Si-hia *k'ä*, *g'ä*[2] 皆, gold. B. HOUGHTON, in his very interesting and suggestive essay "Tibeto-Burman Linguistic Paleontology," justly says that there seems little doubt that gold was practically unknown to the Burmans and Tibetans before they divided.[3] Indeed, Burmese *hrwe* (spoken Burmese *šwe*) and Tibetan *gser* are distinct types. Moreover, the Indo-Chinese languages in general do not have a common word for "gold." Chinese practically has no word proper for it, but styles it "yellow metal," *huaṅ kin* 黃金. The same meaning underlies the Tibetan term *g-ser*, which is derived from the adjective *ser* ("yellow"), and, as shown by the corresponding Mo-so word *ke-se*,[4] is to be analyzed into **ke-ser* (*ge-ser*). The element *ke*, probably related to Chinese **gim*, *kim* 金 (Cantonese *köm*, Fukien *kiṅ*, Japanese *kin*, *kon*),[5] appears to have had in its origin the significance "metal." It is exactly the same word that we meet in Si-hia *k'ä*, *g'ä*, which, accordingly, mirrors

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[1] As to the change of *ń* to *y*, compare 雁 Fukien *ńaṅ*, Cantonese and Hakka *ńan*, Tibetan *ńaṅ* ("wild goose"), Northern Chinese *yen*, Si-hia *ya*; 贋 Cantonese and Hakka *ńan* ("false"), Tibetan *ńan* ("bad"), Northern Chinese *yen*, Si-hia *wen*.

[2] The accent following a consonant is intended to express the palatalization of the latter.

[3] *J.R.A.S.*, 1896, p. 34.

[4] Thus given by J. BACOT, *Les Mo-so*, p. 46. H. R. DAVIES (*Yün-nan*, p. 360) imparts *ha* as Mo-so word for "gold;" this appears merely as a variant of *ke-*, *ge-*.

[5] Siamese *gam* (*k'am*), Ahom and Shan *k'am* (MASPERO, *Bull. de l'Ecole française*, Vol. XI, p. 168); Kachin *gyā*, "gold" (*Gazetteer of Upper Burma and the Shan States*, Part I, Vol. I, p. 662), in Karen dialects *kam* and *kyam* (*ibid.*, pp. 650, 651).

the same state of affairs as Chinese *kim*, *kin*, inasmuch as the original meaning "metal" passed into that of "gold." In like manner we find in Miao-tse *ko* ("gold"). Si-hia *k'ä*, therefore, is preserved in the first element of Mo-so *ke-se* and Tibetan *g-ser*. The latter word is still articulated *γser* in Balti and K^{c}ams, but *ser* in all other dialects. Since this element *ser* has the same tone (the high tone) as the word *ser* ("yellow"), the Tibetans simply designate gold as "the yellow one." [1] The same condition is reached in Lo-lo: Nyi Lo-lo *śe*, A-hi Lo-lo *ša*, Lisu *śi*, P^{c}u-p^{c}a *si*, Chö-ko *a-si* ("yellow" and "gold," akin to Tibetan *ser*); further, Ngačaṅ *se*, Lisu *šö*, A-k^{c}a *su*.

3. Si-hia *šaṅ* 尙, iron. There is no general Indo-Chinese word, either, for "iron." The working of this metal became known in eastern Asia at a comparatively late period. Chinese *t^{c}ie* 鐵 (formerly **t^{c}it*, *t^{c}et*, *det*; Japanese *tetsu*) is apparently an ancient loan-word, somehow connected with the Old-Turkish forms: Uigur *tämür*, Orkhon inscriptions *tämir*, in other dialects *täbir* or *timir*, Mongol *tämür* (*tümür*). The Si-hia word *śaṅ*, as suggested also by Mr. Ivanov, may be akin to Tibetan *l-čag-s* (Lepcha *ča*, Central Tibet *čak*, *ča*);

[1] It is curious that so eminent a philologist as JÄSCHKE (*Tibetan-English Dictionary*, p. 590) could connect Tibetan *gser* with Persian *zer*. Persian *zer* (Pahlavī *zar*, Kurd *zer*, *zir*, Afghan and Balučī *zar*) goes back to Avestan *zairi*, *zaraṇya* (Vedic *hari*, *hiraṇya*; compare P. HORN, *Neupersische Etymologie*, No. 554); and Persian *zerd* ("yellow"), to Avestan *zairi*, *zaray*. In order to make Tibetan *gser* (from **ke-ser*, *ge-ser*) dependent upon Persian *zer*, it would be required to prove also that Tibetan *ser* ("yellow") is traceable to Persian; this assumption, however, is disproved by the Lo-lo forms *ša*, *še*, *ši*, *si*, and Kachin *si-t*, which show that Tibetan *ser* is derived from a base *se*, followed by a suffix *-r*. The Lepcha words for "gold," *jer* and (in the legends of Padmasambhava) *zar*, are singular. Again, it seems to me that the coincidence of Lepcha *zar* with Pahlavī *zar* is accidental, for an influence of this language on Lepcha can hardly be assumed. In view of Kanaurī *zaṅ*, *za-ṅ* ("gold"), it seems to me conceivable that Lepcha *ze-r* and *je-r* are variations or perhaps older forms corresponding to Tibetan **zer*. Compare (under No. 199) Tibetan *zaṅ-s* ("copper"), developed from **jaṅ*, where Lepcha, Mo-so, and Yün-nan Tibetan have initial *s*.—Regarding gold as the yellow metal compare Phrygian γλουρός ("gold") = Greek χλωρός ("yellowish"); Gothic *gulþ*, Slavic *zlato*, Lettic *zelts*, from Indo-European **ĝhelto-s* ("yellow"), etc.

Hor-pa *ču*. The alternation of the palatal surd *č* with the palatal sibilant *s* is not unusual in Tibeto-Burman languages, and, in the present case, is confirmed by Jyaruń *šo-m*, Mo-so *šu*, *šo*, Bodo *śu-r*, and Manyak *ši* ("iron"). The final guttural nasal is met also in Raṅkas *čyaṅ*, Dārmiyā *ni-jaṅ*, Chaudangsī *na-jaṅ*.[1] There is an exceedingly large variety of words for "iron" in Indo-Chinese. Suffice it to note here that Nyi Lo-lo *re* (compare Ahom and Shan *lik*; Kachin *pᶜri*; Kanaurī and Kanāshī *ron*), A-hi Lo-lo *hö*, *ho*, Lisu *ho* (*huo*), are unrelated to Si-hia and Tibetan.[2]

4. Si-hia *wu* 悟, cow = Shan *wo*, *wuw* (Karen *pu*), Ki-lao *wu*, Ahom *hu*, Khamti *ṅo*, Laos *ṅoa*, *ṅ-woa*, *ṅ-wau*; Chuń-kia *vai*, *uai*; Ya-čᶜio Miao *ṅuei*; Cantonese *ṅau*; Burmese *nwā* (spoken *nwau*); Thādo *bo-ṅ*; Tibetan *ba*. B. Houghton (*J.R.A.S.*, 1896, p. 36) has combined Burmese *nwā* with Tibetan *nor* ("cattle"); this is partially correct, inasmuch as Tibetan *nor* possibly inheres in the prefix *n-*, the first part of the Burmese word, which has arisen from **no-wa*,—*no* answering to Tibetan *nor*, and *wa* to Tibetan *ba*. Tibetan *nor* itself is *no* + *r*, *r* being an affix; the root *no* survives in Lo-lo-pᶜo *no-ñi* ("ox"),[3] in Southern Chin *no* and *no-n* ("cattle"), in Kami *pan-no* and *ma-na* ("buffalo"), and in Lisu *a-ṅa* ("buffalo"). In the Jyaruń dialect "cattle" is called *nuṅ-wa*, *nu-ṅ* being the equivalent of *no-r*, the guttural nasal being substituted for *r*.

5. Si-hia *žu* 汝, fish = Mi-ñag *zö*; Tibetan *ña*; Lepcha *ṅo*; Newārī *ṅā*; Lo-lo-pᶜo *ṅo*, Pᶜu-pʻa *ṅa*, A-hi Lo-lo *ṅo-zo* and *a-ṅo*, Nyi Lo-lo *gha*, Hua Lisu *ṅ-wa* (Black and White Lisu *wa*); Mo-so *ṅi*; Chinese *ṅi*, *yü* 魚; Burmese and Kachin *ṅa*. In its phonetic formation the Si-hia word is isolated, and seems to answer only to

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[1] *Linguistic Survey of India*, Vol. III, pt. 1, p. 538.

[2] Khamba and Rāi *sel*, Bāhiń *syal*, Kirāntī *syel*, curiously remind one of Manchu *sele*.

[3] The element *ñi* is identical with Lisu *a-ni* ("ox" and "cow").—Chinese *ṅu*, *wu* 牾 ("wild ox") should be added to the above series.

Mi-ñag *zŏ* and the element *zo* of Lo-lo *ńo-zo*, rather than to the typical Indo-Chinese series.

6. Sia-hia *šou* 手, louse = Nyi Lo-lo *ši-ma*; Kachin *tsi*; Tibetan *ši-g*, *ši-k*, Lepcha *ša-k*; Annamese *sa-t*, Chinese *ši-t* 虱, Fukien *sai-k*; Southern Chin *hai-t*, *hë-k*; Kami *χē-t*; Bunan *šrig*, evolved from **ši-rig*, for in Kanaurī *rig*, *ri-g*, means "louse" (compare Ahom *rīn*, "flea;" Shan *hin*, "sandfly;" Ahom *rau*, *raw*, Shan *haw*, "louse;" and Ahom *rai*, "kind of louse or mite," Shan *hai*, "lice of animals and fowl"). Kanaurī *š-pög* (*š-päg*), "flea," appears to have originated from **ši-pög*; the association of flea and louse is evidenced by Tibetan *kᶜyi-šig* ("flea," literally, "dog-louse") and *a-ji-ba*, *l-ji-ba* (flea"),[1] the stem *ji* representing the same base as *ši* (compare also Nyi Lo-lo *čᶜe-ši-ma*, "dog-louse, flea," and Ahom *bat*, "a kind of louse found on the body of a dog," and Shan *mat*, "flea").[2]

7. Si-hia *lañ-nöń* 浪能, camel. In order to understand the Si-hia word for "camel," it is necessary to remember the history of this domestic animal and its designations in the cognate languages. In ancient times the Indo-Chinese group of peoples was not acquainted with the camel. It was unknown to the ancient Chinese; at least there is nothing on record about the matter. The camel, together with the donkey and the mule, belonged to the "strange domesticated animals" (奇畜) which the Chinese for the first time encountered among the Hiung-nu.[3] The name for the camel then

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[1] The prefix *l-* originated from *li*; we find *lī* ("flea") in Minbu and Sandoway (Houghton, *J.R.A.S.*, 1895, p. 734).

[2] Likewise in the Mon-Khmêr languages the flea is known as the louse of the dog. It is also a fact of great interest that this family, unrelated to Indo-Chinese, has a common word for "louse" (see E. Kuhn, *Beiträge zur Sprachenkunde Hinterindiens, S.B.A.W.*, 1889, p. 215). The louse belongs to the very oldest ingredients of Indo-Chinese and Mon-Khmêr cultures.

[3] *Shi ki*, Ch. 110, p. 1; *Ts'ien Han shu*, Ch. 94 A, p. 1. In view of this fact,

was *t^{c}o-t^{c}o* 橐佗, and in this form we find it written also in the contemporaneous documents of the Han period.[1] The vacillating modes of writing the word in the Annals of the Han 宅,[2] 佗, and 駝, show well that an effort toward reproducing a foreign word was made; *t^{c}o-t^{c}o* appears to have been the Hiung-nu name for the camel.[3] How the latter was articulated we do not know exactly, but the restoration of *t^{c}o-t^{c}o* to the older phonetic stage with initial non-aspirated sonant—that is, *da-da* or *do-do*—is legitimate.[4] An exact parallel to this word is no longer preserved, but it seems to be traceable in Mongol *adaṅ*, Turkish *atan* ("gelded camel"), further in the general word for "camel:" Uigur *töbe*, *töbek*; Djagatai *töve*, *töye*, *tüye*; Altaic and Teleutic *tō* (from *tögö*), also *tebe*, *tebege*; Soyot *täbä*; San-č^{c}uan T^{c}u-jen *time*; Taranči *tȳgä*; Osmanli *dävä* (*devé*); Serbian *deva*; Albanian *deve*; Ossetian *tewa*, *täwa*; Magyar *teve*; Old Chuvaš *täwä*, Cumanian *tova*; Mongol *tämäγän*, *tämän* (Guiragos in 1241 wrote the word *thaman*); Niüči *teo*, Manchu *temen*, Gold *tyme*, Solon *temuγe*. The Taranči word *tȳgä* means also "a sepulchral mound," and Djagatai *täbä* (Altaic *töbö*, Osmanli *tebe*, Chuvaš *tübe*) signifies "summit, mound," likewise; in Mongol we meet *dobo* ("hill") and in Manchu and Tungusic *dube* ("summit"). The word for "camel," accordingly, seems to be based on that conspicuous property of the animal, the hump. For this organ the Chinese have preserved a special word *fuṅ* (from **buṅ*), formerly

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Bretschneider's generalization (*Mediæval Researches*, Vol. I, p. 150) that "the Chinese were acquainted from remote times with the camel of Mongolia," is difficult to understand.

[1] Chavannes, *Documents chinois découverts par Aurel Stein*, p. 74, No. 319.

[2] Thus still in *T^{c}ang shu*, Chs. 170, p. 3 b; 217 B, p. 1.

[3] P. P. Schmidt (*Essay of a Mandarin Grammar*, p. 175, in Russian, Vladivostok, 1914), as far as I know, is the only one who justly states that "in all probability the Chinese word *t^{c}o* is of Central-Asiatic origin."

[4] The Japanese and Annamese reading of 駝 is *da*. Regarding *t^{c}o=da* see particularly Pelliot, *Bull. de l'Ecole française*, Vol. VI, 1906, p. 372.

written 封,[1] and subsequently 峯 ("peak of a mountain").[2] We first meet it in the designation of the dromedary or single-humped camel of Ngan-si (一封豪駝). This word *fuŋ* (**buŋ*) is traceable in the second element of the Tibetan expression for the camel *rŋa-boŋ* (Balti and Purig *šŋa-boŋ*, Spiti *ŋa-boŋ*, West Tibetan *ŋa-moŋ*). The Chinese-Tibetan *buŋ*, *boŋ*, however, is again an ancient loan-word received from Turkish-Mongol languages: Mongol *bükü* or *bükün*[3] and Manchu *bohoto* ("camel-hump"); Djagatai and Kirgiz *bykyr* ("hump");[4] Djagatai *buŋra*, Kirgiz *būra*, Osmanli *buŋur*,[5] Mongol *bughūra* ("camel-stallion").

At a later period[6] the Chinese word *t'o-t'o* was altered into *lo-t'o* 駱駝. At that time *lo* was still possessed of a final *k* (compare Japanese *raku*); and this word **lok*, in my opinion, is the reproduction of some Turkish word, the remnants of which have survived in Djagatai and Kirgiz *lök* لوك ("single-humped camel").[7]

In this connection, the Lepcha word for the camel, *lum-daŋ*, deserves special consideration. MAINWARING and GRÜNWEDEL, in their excellent dictionary of the Lepcha language (p. 354), have added to this word the comment "Chinese" in parentheses. But *lum-daŋ* cannot well be a mere Chinese loan-word in Lepcha; for

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[1] See *Ts'ien Han shu*, Ch. 96 A, p. 6 b.

[2] The so-called "wind-camel" (*fung t'o* 風駝, see BRETSCHNEIDER, *l. c.*), that is, a swift-footed camel for the despatch of a special courier, is probably nothing but a substitute suggested by punning upon the loan-word *fuŋ* (**buŋ*).—From a semasiological point of view, compare Persian *kohān* کوهان ("hump of a camel"), derived from *koh* کوه ("hill").

[3] The former is given in K'ien-lung's Polyglot Dictionary (Ch. 31, p. 62), the latter in the Mongol dictionary of I. J. Schmidt. Kovalevski and Golstunski also have recorded the former in their Mongol dictionaries.

[4] RADLOFF, *Wörterbuch der Türk-Dialecte*, Vol. IV, col. 1878.

[5] RADLOFF, *ibid.*, col. 1806, 1807, 1817.

[6] Without attempting here to define its limits exactly, it may be pointed out that the word *lo-t'o* occurs in *Sung shu*, *Liang shu*, and *T'ang shu*.

[7] RADLOFF, *l. c.*, Vol. III, col. 755. Compare also Turkī *lökän*.

the initial sonant of *daṅ* would indicate that the word was at least borrowed at a time when the present Chinese *t^{c}o* was still articulated *da*, which would carry us at least as far back as the T^{c}ang period. We know nothing, however, about a possible contact of the Lepcha with the Chinese in that era, nor is the very existence of a Lepcha tribe attested at that date. Yet the fact remains that the Lepcha, in the persistent isolation of their mountain-fastnesses, have preserved the word in that original phonetic state which not only we are bound to assume for the Chinese, but which we find also in Mongol *adaṅ* (corresponding to Turkish *atan*, "gelded camel"). Again, it cannot be denied that the first element of the Lepcha word bears a certain relation to Chinese *lok*, although the final *m* in place of the guttural surd remains singular; it was perhaps suggested by the Lepcha word *fyam* or *a-fyam* ("hump"); compare *lum-daṅ on fyam* ("camel's hump").

The Si-hia word for the camel, *laṅ-nöṅ*, is composed of the two elements *laṅ* and *nöṅ*. For the first element, the alternative between *laṅ* and *raṅ* remains, the former being preferable in view of Chinese *lo* and Lepcha *lum-daṅ*, the latter in view of Tibetan *rṅa* (*-boṅ*).[1] Tibetan *r-ṅa* should be conceived as having originated from **ro* (or *ra*)*-ṅa*,[2] and Si-hia *laṅ* in like manner from **lo* (or *la*)*-ṅa*, the word *ṅa* referring to the hump of the animal (compare the derivative *r-ṅo-g*, "hump;" Siamese *hnõk*, "hump of zebu").[3] The accent operated differently in the two languages: in Tibetan, the strong accentuation of the ultima, **ro-ṅá*, finally resulted in *r-ṅa*; in Si-hia, the accent was thrown upon the first syllable,

[1] The complement *boṅ* is not essential to the word. It may be dropped at least in the formation of compounds, for instance, *rṅa-rgod* ("wild camel;" Polyglot Dictionary of K^{c}ien-lung, Ch. 31, p. 3), *k^{c}al-rṅa* ("loaded camel;" *ibid.*, p. 47).

[2] A similar development is found in *rṅa-ma* ("tail"), from **raṅ-ma* or *ra-ṅa-ma*; Ahom *raṅ* ("tail"). Tibetan *ma*=Thāḍo *me*, Kami *a-mai*, Lo-lo *ma*, *mä* ("tail").

[3] *Gye-gu-čan* ("provided with a hump") is a Tibetan synonyme of "camel."

**ló-ña*, *lá-ña*, and ultimately brought about the monosyllabic product *laň*, under the pressure of the dissyllabic compound *laň-nöň*. It is well known that in Tibeto-Burman the ending of a dissyllabic word may be dropped when it enters into composition and thus forms a new dissyllable.

The second part of the Si-hia word *laň-nöň* cannot be explained from Tibetan *boň* or *moň*. The element *nöň* being written 能, and the same character serving for the transcription of the numeral "two" (*nöň*), it seems probable that the same meaning attaches to the word *nöň* in the compound *laň-nöň*. It would thus have the sense "two-humped camel" (**lo-ña-nöň*, literally, "camel-hump-two"). This implies that also the single-humped camel or dromedary was known to the Si-hia. The Annals of the T'ang Dynasty attribute to Tibet single-humped camels capable of running a thousand *li* a day.[1] The Si-hia country appears to have abounded in camels. Tribute gifts to the Chinese Court of three hundred camels are mentioned in the Chinese Annals; and Rashid-eddīn states that Chinggis, after subjugating part of Tangut, drove off many camels which formed their wealth.

8. Si-hia *liň-lo*, *riň-lo*, *riň-ro* 領羅, horse. To all appearances this word presents a compound formed by two synonymous terms. As to the first element, *liň*, *riň*, we may compare it with the widely diffused word *raň*, which in Kanaurī is the designation for "horse."[2] This type, further, occurs in Bunan *š-raň-s*, Chepaň *se-raň*, Burmese *m-raň* (from **mo-raň*), Wa *ma-röň*, Riaň *ma-raň*; Palauň *b-raň*, Rumai *r-b-raň*. The fact that the second element of

[1] 獨峯駝日馳千里 (*T'ang shu*, Ch. 216, p. 1 b). This item is not given in the corresponding passage of the *Kiu T'ang shn* (Ch. 196 A, p. 1 b).

[2] To compare Si-hia *liň* with Kanaurī *gi-liň-ta* ("horse") would be a fallacy. The latter is a Tibetan loan-word and composed of *gi-liň* (Jäschke: "a strong-bodied, durable horse") and *'r-ta* ("horse"). The former, in all probability, is nothing but a transcription of Chinese *k'i-lin* (**gi-lin*, in Tibetan also *gi-lin* and *gyi-liň*).

the Si-hia compound, *lo* or *ro*, is an independent base with the meaning "horse," is well evidenced by the Si-hia language itself, which offers the word *lo-i* or *ro-i* 羅依 ("saddle"), literally, something like "horse-covering" (see Morphological Traits, § 2).

The same word for "horse" is met in T^{c}o-ču *ro*, Newārī *sa-la* (the element *sa* being identical with the above *š-* and *se-* of Bunan and Chepaň; Southern Chin *ší*), Pahrī *so-ro*; Kachin *kum-ra*; Jyaruň *mo-ró* and *bo-ró*, Manyak *bó-ro*, *bro*, and in the prefix *r-* of Tibetan *r-ta*, which appears to have been evolved from **ro-ta*, and Tibetan *r-kyaň* ("wild horse"), from **ro-kyaň*. [1]

An old theory, already pointed out by Tomaschek, is to regard the Indo-Chinese word-types for "horse" in general as borrowings and to render the Mongol-Tungusic *morin* responsible for all phenomena of the kind in the Indo-Chinese languages. In view of the history of the domestication of the horse, it may indeed be possible that the word *morin* has a certain share in these formations, but certainly it is not capable of accounting for all the manifold variations that we meet in Indo-Chinese. It was W. Schott [2] who wisely cautioned against too wide an application of Tomaschek's theory. A. Conrady, [3] nevertheless, adopted the latter in its entire range, but the proof given in support of his opinion is not wholly convincing. There is no resemblance, for instance, between Tibarskad *šuň*, Kanâurī *šaň*, Southern Chin *ší*, Singp^{c}o *gūm-raň*, Taňk^{c}ul *sa-puk*, Karen *t^{c}i*, *ka-t^{c}i*, etc., and Mongol *morin*. According to the doctrine of the loan-theory, the word *morin* was dissected by the Indo-Chinese into *mo-rin*, and the first element *mo* (*ma*) is found in Chinese, Lo-lo (*mo*, *mu*), and in the T^{c}ai languages. [4] The

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[1] The element **kyaň* presumably is related to *r-god-pa* ("wild").

[2] *Über einige Tiernamen*, p. 12 (*A. Ak. W. B.*, 1877).

[3] *Indochin. Causativ-Bildung*, p. XII.

[4] Regarding the latter see Maspero, *Bull. de l'Ecole française*, Vol. XI, p. 165.

second element *-rin* we should then meet in our Si-hia word *riṅ*. In Conrady's opinion the prefix *r-* should represent the survival of the root-word in Tibeto-Burman, and be reducible to the Mongol prototype *morin*.[1] This view conflicts with Si-hia and also other Indo-Chinese formations. If we infer (and perhaps justly so) that *morin* yielded to Si-hia the word *riṅ*, it is difficult to realize that this language should have drawn upon *morin* twice,—first, to adopt the syllable *rin*, and second to distil an element *lo* or *ro* from the *r* of the same word. On the contrary, *lo* or *ro*, as we have seen, represents another Indo-Chinese base conveying the notion "horse," and independent of *morin*. We recognize this also from Rumai *r-b-raṅ* and Jyaruṅ *mo-ro*. The latter, certainly, is not merely a variation of *morin*, but is composed of *mo* (the Chinese-Lolo-Tᶜai word, possibly derived from the first syllable of *morin*) and *ro*, an entirely distinct word for "horse." Remnants of this word *lo* or *ro* in the Ural-Altaic languages possibly are encountered in Magyar *ló*, Irtish-Ostyak *t-lau-χ* or *t-lo-χ* (from **ta-lo-χ*; regarding the word *ta* see below), Mongol and Kirgiz *o-lo-ṅ* ("girth in harness").[2]

In the Gešitsᶜa language (Hodgson's Hor-pa), a peculiar Tibetan dialect spoken in the territory stretching from Dawo to Kanze in the northwestern part of Sze-chᶜuan, we meet as the word for "horse" *ryi* (*r'i*). As in Buryat the word for "horse" shows the same palatalization of *r*, *moryeṅ* (*mor'eṅ*) and *morye* (*mor'e*), similarly in Gold *mor'ä*, it seems likely that the Gešitsᶜa word is traceable to the former contact with a Mongol-Tungusic dialect in which this process

[1] It is hardly possible to suppose with Conrady an older form **mor*. Such can be inferred neither from Mongol-Tungusian, nor from Chinese or any other Indo-Chinese speech. Chinese *ma* never had a final consonant.

[2] Radloff, *Wörterbuch der Türk-Dialecte*, Vol. I, col. 1086. As Altaic *koloṅ* corresponds to Kirgiz-Mongol *oloṅ*, it may be permissible to refer also to Altaic, Kirgiz, etc., *kulun* ("foal;" *ibid.*, Vol. II, col. 979).

of palatalization had taken place.[1] By means of this suggestion, we may account for the peculiar Si-hia word *yiṅ* 迎, used for the horse in the cycle. Tentatively I would propose that it may have been derived from a supposed form *moryiṅ* (*mor'iṅ*), analyzed into *mor-yiṅ*. The existence in Indo-Chinese of the type *mo* on the one hand, and the type *riṅ*, *raṅ*, *ryi*, *ri*, on the other hand, raises to a high degree of probability the supposition of a loan from *morin*.

The second element of the Tibetan word *r-ta*, in my opinion, is of Turkish origin, and should be connected with the word *at* ("horse"), common to all Turkish idioms. The phonetic combination *at* does not exist in Tibetan, for which the metathesis *ta* was required.[2] There is even reason to believe that in some ancient Turkish dialect a word for "horse" of the form *ta* seems to have existed. As is well known, the stem *at* appears in Mongol in *adaγun* (*adaγu*, *aduγu*), "herd, herd of horses" (Buryat *adūχuṅ*, Tungusian *adugun*, Manchu *adun*, "herd;" Manchu *ad-u-la*, "to graze"), *adaγučі* ("herdsman tending horses"), *adaγusun* ("beast, domestic animals").[3] W. Radloff[4] has added to this group Turkish *atan* ("gelded camel") and Mongol *adaṅ tämäγän* of the same meaning. These equations bear out the fact that in the Turkish-Mongol languages the word *at* originally did not have the significance "horse," but conveyed the general meaning "gregarious or domestic animal," and subsequently was differentiated into the specialized categories "horse" and

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[1] In Hodgson's list of Sok-pa words the horse is *ma-ri*. Considering the exuberant number of Mongol loan-words in Sok-pa, this word may well have been directly borrowed from Mongol. *Mari* is likewise the Korean word for "horse."

[2] A similar metathesis prevails between Tibetan and Bunan: Tib. *k'a* ("mouth")—Bunan *ag*, Tib. *r-tsa* ("vein")—Bunan *sta*. Compare also Ladākh *rgun-drum* ("grape")—Balti *urgun*.

[3] This relationship was first pointed out in 1836 by W. Schott (*Versuch über die tatarischen Sprachen*) and repeated by him in *Über einige Tiernamen* (*A. Ak. W. B.*, 1877, p. 12). Mongol *ajirga*, Manchu *ajirχa*, Tungusian *ad'irga* (Castrén, *Tungusische Sprachlehre*, p. 72), Yakut *atȳr* (Pekarski, *Dictionary of the Yakut Language*, in Russian, col. 201), "stallion," may be added to this series.

[4] *Wörterbuch der Türk-Dialecte*, Vol. I, col. 441, 454.

"camel." If *atan* in Turkish and *adaṅ* in Mongol refer to the camel, it is obvious that also the stem *tä-, tö-* (see p. 21), applied to the camel, is connected with the stem *at* for the designation of the horse. Moreover, as pointed out by Schott, the horse is styled *tau, tav*, in the language of the Irtish-Ostyak. And *tai* in Uigur, Osmanli, Djagatai, and many other dialects, means a "young horse;" [1] Djagatai *tatu*, according to VÁMBÉRY, [2] is "a strong horse of medium stature, a cart-horse," according to Sulejman Efendi "a stallion." [3] The Mongol word *taki* relates to the wild horse.

9. Si-hia *siṅ* (character not given), heart, mind (occurs in the phrase *siṅ-le*, "to think") = Chinese *siem, sim* 心; Tibetan *sem-s* ("mind, soul"), *sem-pa* ("to think"); White Tai *sam*; Kachin *sin-tu* ("heart").

10. Si-hia *r-ni* (*lu-ni*) 六尾, ear. This word represents a compound formed by the two synonymes *r* + *ni*, each of which has the meaning "ear." It corresponds to Tibetan *r-na* (from **re-na*), except the peculiar vowel change from *a* into *i* (see Phonology, § 1). The vowel *i* occurs also in Hakka *ṅi*, Pahrī (Nepal) *ni-sab-ne*, Rai (Nepal) *ṅi-ćo*. The element *r-* is preserved in Chinese *r* 耳, in Bunan *rē-tsi* ("ear"), Chuň-kia *re, reo*, Ya-č^{c}io Miao *b-re*. In Jyaruň *d-ṛ-nä* ("ear") *r* still forms a syllable with vocalic value. In the majority of Tibeto-Burman languages we find only the base *na, no*, in combination with various elements: Nyi Lo-lo *na-po*, A-hi and Lo-lo-p^{c}o *no-pa*, Lisu *na-bo*, P^{c}u-p^{c}a *na-be-tla*, Chö-ko *na-ku*; Burmese *nā*, K^{c}achin *na*; K^{c}yeň *ma-nho*; Southern Chin *a-hno*; Guruň *nha*; Sunwar *no-p^{c}a*; Magar *na-kep*; Balti and Purig *s-na*, etc. Gešits^{c}a *ña* (book-language *s-ñan*) and Lepcha *a-ñor* are connected

[1] RADLOFF, Vol. III, col. 765. Perhaps also Mongol and Manchu *to-χo* ("to saddle"), Mongol *to-χo-m*, Manchu *to-χo-ma*, Tungusian *to-ku-m* ("saddle-cloth"), have to be associated with this root.

[2] *Čagataische Sprachstudien*, p. 11.

[3] I. KUNOS, *Sulejman Efendi's Čag.-osman. Wörterbuch*, p. 42.

with another stem, *ñan* ("to hear"). The element *čo* in Rai *ñi-čo* seemingly corresponds to the second part of Ladākhī *nam-čʿok* (from **r-na-ba-čʿog*); the same formation might eventually be recognized in Si-hia *r-ni čʿañ-ni* 六尾長尾 ("exterior part of the ear"). *Ni* is a Si-hia suffix, and Si-hia final *ñ* may correspond to Tibetan final *g* (see Phonology, § 27). On the other hand, the expression *čʿañ-ni*, written in the same manner, means also "to fly," and the term *r-ni čʿañ-ni*, after all, may be of independent Si-hia origin, without Tibetan affinity.

11. Si-hia *ni.* or *ñi* 你, nose = Mo-so *ñi-ma*; Nyi Lo-lo *na-bi*, Chö-ko *na-mo*, Lo-lo-pʿo *no-bi*, A-hi Lo-lo *no-bo*, Lisu *na-pe*, *na-kö* (Kami *na-baun*; Ṭōṭo *na-ba*); Tibetan *s-na*, Gešitsʿa *s-ni* and *s-na*, Jyaruń *te-š-no-s*; Burmese *nhā* (Newārī *nhā-sa*), Kuki-Lušai *hnā*, Southern Chin *h-nu-t-tō*; Lepcha *tuk-n-om*; Sunwār (Darjeeling) *ne*. Besides the *i*-forms of Mo-so and Gešitsʿa, we have *nhi-se* in Pahrī (Nepal) and *a-nhi-ča* in Angao-Nāgā.

12. Si-hia *li* 力, moon. This is a peculiar variation of the general type *la*, *le*, *lo*, that we meet in Tibeto-Burman. The form *li*, however, is not entirely isolated, but occurs in Ya-čʿio Miao and Hua Miao *li*, in Leń-ki Miao *ka-li*, and in Miao-tse *ka-h-li*. The more important representative forms are: Burmese *la*, Lepcha *la-vo*, Nyi Lo-lo *š-la-ba*, Tibetan *z-la-ba* (Central Tibetan *da-va*, Kʿams and Ladākhī *lda-va*); Bunan *h-la*; A-hi Lo-lo *h-lo*, *h-lo-bo*, Kʿyeń and Southern Chin *k-h-lo*, Kuki *lha*, Haka *k-la*, Thuluń *k-h-le*, *k-h-lye*; Kachin *ša-ta*. Tib. *z-la* is evolved from **za-la*, as shown by Lahūl *la-za*.

13. Si-hia *tsʿi-ñu* 七吾, salt = Tibetan *tsʿwa* (*tsʿụa*), *tsʿa*, *tsʿo*; Nyi Lo-lo *tsʿa*, A-hi Lo-lo and Lo-lo-pʿo *tsʿo*; Lisu *tsʿa-po*; Pʿu-pʿa *sa-m*, Chö-ko *tso-m*; Mo-so *tse*; Hua Miao *ndse*; Newārī *če-lu* ("salty taste"); Manyak *če*; Lepcha *ča*; Kanaurī *čʿa*; Burmese *čʿā*; Karen *i-sē*, Yintale *i-sā*. The Si-hia form with the vowel *i* occurs only in Thādo *čī* (T. C. Hodson, *Thado Grammar*, p. 99), Chin *dsī*

and *tsī*, and Hei Miao *śie*. The corresponding Chinese word is *ts^{c}o* 鹺 (Canton *č^{c}a*, Fukien *č^{c}wa*, Sino-Annamese *sa*). The second element *ȵu* in the Si-hia compound seems to be an independent base, likewise with the meaning "salt." It corresponds to Kuei-chou Chuň-kia *ku* and Kuang-si Chuň-kia *giu* ("salt:" S. R. Clarke, *l. c.*, p. 310), Ahom *k-lu* (from **ku-lu*), Shan *küw*, Siamese *k-lua*.

14. Si-hia *ȵo* 遏, I = Chinese *ȵo* 我; Tibetan *ȵa*, *ȵo*; Lo-lo *ȵa*, Lisu *ȵwa*, Mo-so *ȵa*, *ȵö*; Burmese *ȵa*, Kachin *ȵai*.

15. Si-hia *wei* 爲, to do = Chinese *wei* 爲, Tibetan *bye-d* (*v'e*, *j'e*), Mo-so *be*, *pe*.

16. Si-hia *si* 悉, to die = Chö-ko *si-pü*, P^{c}u-p^{c}a *se-poa*; Kachin *si*; Lo-lo *šö*; Mo-so *še*; Tibetan *ši*, Yün-nan Tibetan *šö*; Digaru, Dafla, and Miri (Assam) *sī*; Chinese *śe* 死.

17. Si-hia *wen* (character not given), bad = Chinese *ȵan* (*yen*) 贋 ("bad"); Tibetan *ȵan*; Ahom *ñam* ("false, falsehood").

Group II.

Words directly Related to Lo-lo or Mo-so, or Both Idioms, and bearing a Further Relationship of the Second Degree to Tibetan or Chinese, or to Both Languages.

18. Si-hia *kou*, *gou* 苟, ant = Nyi Lo-lo *kau-ma*, A-hi Lo-lo *ka-vu* (*vu* is perhaps akin to Chinese *wei* 蝟, "wingless insects"); Ahom *kau* ("spider"), Shan *kuň-kau*; Bhūtan *kyo-ma*; Kirānti (*sača-*) *ka-va*; Kachin *ka-gyin*. The element *-ma* of *kau-ma* meets its counterpart in Tibetan *grog-ma*.[1] The latter, stem *grog*, as shown by Jyaruň *go-rok* (Sog-pa *k^{c}o-rok-we*, Hor-pa *k^{c}ro*), should be analyzed

[1] In all probability the element *ma* in this case is not a mere suffix, but an independent base meaning "ant;" compare Ahom *mau*, *ma-t*, *mu-t* ("a kind of ant"); Shan and Siamese *mo-t*, Pa-yi *mu-t*; Thādo *si-mi* ("ant").

into **yo-rog* or **gi-rog* (*rog*, "black"). The base **go, gi* is related to Si-hia *kou, gou*, on the one hand, and to Chinese *ńi* (Japanese *gi*) 蟻 on the other hand. The ant is called *bo-yo* in Lo-lo-p^{c}o, *bu-ku* in P^{c}u-p^{c}a, and *bu-ma* in Chö-ko. This word *bu* seems to me to be identical with Tibetan *ạbu* ("insect, worm;" combining the significance of Chinese *č^{c}uń* 虫) and Burmese *pü:*.

19. Si-hia *pan-bu, ban-bu* (perhaps with labial assimilation *pam-bu, bam-bu*) 板哺, butterfly. The second element *bu* occurs in Nyi Lo-lo *bu-lu-ma*, A-hi Lo-lo *bu-hlo*, Lo-lo-p^{c}o *bo-lu* ("butterfly"), and possibly in Chinese *fu* (from **bu*) 蚨 ("water beetle;" *fu-t^{c}ie*, "butterfly"). The first element may be in some relation with Tibetan *p^{c}ye-ma* of *p^{c}ye-ma-leb* ("butterfly"), Ladākhī *pe-ma-lab-tse*; Tromowa *p^{c}i-ma-lag, pim-lab*, Sikkim *byam-lap*; Mo-so (written language) *p^{c}e-le*; [1] Magar *whā-mā*; Kachin *pa-lam-la*; Thādo *peń-pu-lep*. B. Houghton (*J.R.A.S.*, 1896, p. 37) has identified Tibetan *p^{c}ye-ma-leb* with Burmese *lip-pyā* (the members of the compound being transposed), explaining *pyā* as meaning "to fly." This is interesting, and in some measure is corroborated by the Bunan verb *pan-čum* ("to fly;" *-čum* is a verbal ending), so that Si-hia *pan-bu* would mean "flying insect." It seems doubtful, however, that, as suggested by Houghton, the element *lip, leb* can be interpreted through Tibetan *leb*, which means "flat." This conception of the matter is contradicted by the variant *lab*. It seems more appropriate to take the element *leb* or *lab* in *p^{c}ye-ma-leb* as **le-bu, la-bu*, and to identify **bu* with the base *bu* in the Si-hia and Lo-lo words, and **le, la*, perhaps with Lo-lo *lu, lo*.

20. Si-hia *moń-tsi* 夢積, fly. This is a compound formed by two synonymes. The first element *moń* is apparently identical with Chinese *moń* 亩 ("gadfly"), *moń* 蠓 ("flies"); Siamese, Shan and

[1] The primeval forms presumably are **be, b'e, ba, b'a*, while *ma, -m*, may be suffixes or euphonic insertions. In this way we arrive at a satisfactory explanation of Si-hia *pam-bu, bam-bu*, by analyzing the latter into *pa-m-bu, ba-m-bu*.

Laos *meň* ("insect"); Pa-yi *myän-moň* ("fly"); Ahom *mliň* ("white ant, firefly"), *mük* ("mosquito"); Lepcha (HODGSON) *mań-koň* ("mosquito"); Tibetan *boň* in the names of small insects (*rgyas-poi boň-bu*, "sugar-mite;" *boň-nag*, "dung-beetle"), and Tibetan *muň-ba*, *mug-pa* ("moth, worm"). The second element *tsi* is comparable with Nyi Lo-lo *je-mu*, A-hi Lo-lo *yi-mu*, Lo-lo-p^{c}o *ya-mu* (possibly further relationship with Tibeto-Chinese *yań*, *yiň*, see No. 21).

21. Si-hia *mou-šuai*, *mou-šu* 謀 率, bee. The first element *mou* is met with in Kanaurī *mö-khār* ("beehive"), in Chuň-kia *mo-vei* ("bee"), and Mo-so *mba-me*. According to J. BACOT (*Les Mo-so*, p. 29), this word literally means "honey-mother," so that *mba* would signify "honey" (*me*, "mother"). At the same time we have in Mo-so *ba-ler* and in the written language *mbar* in the sense of "fly." Mo-so *mba*, therefore, seems to be evolved from **mo-ba*. This analysis is confirmed by Chepań (Nepal) *tu-mba* ("bee") and *tu-m* ("honey"),[1] which shows that Mo-so *mba* (**mo-ba*), in the same manner as Chuň-kia *mo-vei* and Si-hia *mou*, has also the meaning "bee." The element *vei* (= Mo-so *ba*) appears in Nyi Lo-lo *d-la-vu-k^{c}iä* ("wild bee"). It is noteworthy that in the Indo-Chinese languages the notions "insect, fly, bee, honey" inhere in the same roots. There is the remarkable parallel: Tibetan *buň-ba* ("bee"), Chinese *fuň* (from **buň*) 蜂, Siamese *p^{c}üň* (from **büň*: MASPERO, *Bull. de l'Ecole française*, Vol. XI, p. 158), Ahom *p^{c}rüň*. The Si-hia word, of course, bears no direct relation to this series, or to Lo-lo-p^{c}o *byo* ("bee"). The latter is akin to Tromowa *byo-mo*, *bya-mo*, and Sikkim *byam* ("fly"). These forms are contractions of **bu-yo*, *bu-ya*, which, as a matter of fact, we meet in West Tibetan *bu-yań* ("humble-bee"). The latter is by no means a corruption of *buň-ba*, as asserted by JÄSCHKE

[1] The element *tu* is related to another word for "fly" in the Mo-so written language, *ndu*, apparently coincident with A-hi Lo-lo *do* ("bee"). The same base is found in Mo-so *bu-tu* ("insect"), Lo-lo-p^{c}o *hyo-to* ("mosquito"), and Nyi Lo-lo *dla-ma* ("bee"), from **do-la*.

(*Tibetan Dictionary*, p. 393a), but an independent formation: *yaṅ* is a root-word with the meaning "insect," that is found in Chepaṅ and Burmese *yaṅ* ("fly"), Kachin *ći-yoṅ* ("mosquito"); Kanaurī *yaṅ* ("fly, bee"); Newārī *yaṁ-kela* ("bee"), Tibetan *s-b-raṅ* ("fly, bee"), Lepcha (*sum-*)*b-r-yoṅ*, Ahom *jūṅ*, *jiṅ* ("dragon-fly"), Shan *yiṅ*; and Chinese *yiṅ* (Wen-chou *yaṅ*) 蠅, "fly." Tibetan *-raṅ*, that as independent word occurs in West-Tibetan *raṅ-ṅiu* ("fly") and *raṅ-si* ("honey"), is merely a phonetic variation of *yaṅ*, for in Sikkim we have *se-byam* and in Tromowa *se-byom* as equivalents of common Tibetan *sbraṅ*.[1] It is therefore obvious that the latter has been evolved from **se-bu-raṅ* = **se-bu-yaṅ*. Lepcha *sum-bryoṅ* is developed from **su-bu-ryoṅ*, with a euphonic insertion of *m* between *su* and *bu*. The base **bu* seems to be associated with Tibetan *a-bu* ("worm, insect") and *s-bu-r* ("beetle"); it is widely disseminated also in the languages of Nepal, in Lo-lo, and Si-hia (see Nos. 18, 22). The second element of the Si-hia word *mou-šu* (probably from **mou-su*), in my opinion, may be correlated with the above Tibetan-Lepcha bases **se*, *su*, Sikkim *se-byam*, Tromowa *se-byom*. This *s*-base appears also in Lohoroṅ *bᶜu-su-na* ("mosquito"), Magar *bᶜu-s-na*, Kuswar *bᶜu-n-si*.

22. Si-hia *mo-lu* (possibly pronounced *m-lu*, *m-ru*, *b-ru* 沒魯), worm, snake. In order to understand this formation, it may be well to proceed from an analysis of Tibetan *sbrul* ("snake"). This complex word (at present articulated *sbrul* only in Purig; Central Tibetan *dul*), as follows from a comparison with the facts of the cognate languages, presents a triple compound evolved from **sa(se)-bu-ru-l*, *sa(se)-bu-lu-r*. 1. The base **sa*, *se*, *si*, is widely spread in

[1] *Ya-ta* and *ra-ta* (that is, the subscribed letters *y* and *r*) interchange within Tibetan: *abras* ("rice")—Tromowa *bya* (Walsh, *Vocabulary of the Tromowa Dialect of Tibetan*, p. vi), *kʿrag* ("blood")—Trom. *kʿyag*, *abros-pa* ("to flee")—Trom. *byo-po*, *akʿrid-pa* ("to guide")—Trom. *kʿyi-ko*, *abrog-pa* ("herdsman")—Trom. *byo-ko*, *brag* ("rock")—Trom. *byag*, *gro* ("wheat")—Trom. *gyo*, etc.

Indo-Chinese: Limbu *o-se-k*;[1] Gyami *š-re*; P^{c}u-p^{c}a *a-si-ma*, Chö-ko *sie-na*, Nyi Lo-lo *še-p^{c}ai*; Mo-so *jö*; Chinese *džie*, *že*, *še*, *šö*, *ša*, *sia* 蛇. As to Tibetan, it is found again in Central Tibetan *sa-gu-tse* ("worm") and in the prefix *s-* of *s-braṅ* (see No. 21), *s-rin* ("worm, insect"), and *s-bu-r* ("beetle"). 2. The base **bu* (*mu*, *mo*) occurs in Tibetan *ạ-bu* ("worm, insect;" *ạ-bu-riṅ*, "snake"); Tibetan *ạbrug*, Balti *blug* ("dragon, thunder"), evolved from **ạbu-rug*, *ạbu-lug* (**lug* = Chinese *luṅ*, "dragon"); Tromowa *bu*, Sikkim *bi-u* ("serpent"), Bunan *de-bu* ("serpent"), Lepcha *bu* ("serpent"), Kirāntī *pu*, Takpa *mrui* (from **mo-rui*), Manyak *bru* (from **bu-ru*); Murmi *pu-ku-ri*; Guruṅ *b^{c}u-gu-ri*; Magar *bu-l* (Mi-ñag *bu-r*); Kachin *la-pu*; Bhrāmu *pai*; Lo-lo (*še-*)*p^{c}ai*, Lo-lo (Baber) *vu*, Lisu *fu*; Kami *pu-wi* (besides, *me-k^{c}wi*, *m-k^{c}we*, *ma-k^{c}ui*); Khambu dialects *pu*. 3. The base **lu*, *ru*, is encountered as independent word in Mo-so *lu* ("worm"), Pa-yi *low* ("python"), in the second element of Lo-lo-p^{c}o *bo-lu* and Nyi Lo-lo *bu-lu-ma* (both "butterfly"); in Sokpa *t^{c}o-le* ("snake"); in Manyak *bru* ("snake"), from **bu-ru*; Tapka *mrui*, from **mo-rui*; further in Burmese *k^{c}rū* (also Burmese *mrve*, "serpent," from **mo-ru-ve*) and Tibetan *k-lu* ("cobra, serpent-demon"), evolved from **gu-lu*, *ku-lu*, *ku-ru* (the first element appears in Central Tibetan *sa-gu-tse*, "worm," Thādo *g^{c}ū-l*, "snake;" Ahom *ku*, "worm;" Murmi *pu-ku-ri*, Guruṅ *b^{c}u-gu-ri*,[2] T^{c}oču *bri-gi*, "snake;" the latter from **bu-ri-gi*, instead of **ru-gu*), and finally in Tibetan **ru-g*, *lu-g* of *ạbrug*, *blug*, previously cited, and in *s-bu-r* ("beetle"), from **se-bu-ru*. As demonstrated by Si-hia and Mo-so *lu* on the one hand and by Tibetan *k-lu* and *s-b-rul* on the other hand, the final *g* of **rug*, *lug* is not inherent in the stem, but is either a terminating affix (**ru-g*, *lu-g*),

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[1] Kanaurī *sa-pös* and Milčaṅ *sābās* appear to be loan-words from modern Indo-Aryan *sapa*, *sap* (from Sanskrit *sarpa*).

[2] Corresponding to Milčaṅ and Bunan *gur-gu-ri*, "thunder" (A. Cunningham, *Ladák*, p. 403), which I conceive as a gemination (**gu-ri-gu-ri*), and to Kanaurī *gur-gur* ("thunder").

or the survival of the above base **gu*; in this case *ạbrug* would represent a triple compound, contracted from **ạbu-lu-gu*. For this reason I conceive also Chinese *luṅ* ("dragon") as *lu-ṅ*, that is, stem *lu* + affix *ṅ*; this opinion, from the viewpoint of Chinese, is confirmed by the form *löe* for *lu-ṅ* in the dialect of Wen-chou. In Ladākhī and Lahūl, "snake" is called *rul*; possibly *rul* has arisen from a contraction of *ru-lu*, that is, a gemination of the base **ru, lu*. On this assumption, *sbrul* would even be a quadruple compound (**se-bu-ru-lu*), each element having the significance "worm, snake." It is conceivable, however, that the final *-l* of *sbrul, rul*, is merely an affix on the same footing as *-g, -n* (compare *spre-l*, "monkey," derived from *spre*). There can be no doubt of the fact that Si-hia *mo-lu* is composed of the two bases dealt with under 2 and 3. What may be questioned is solely the correct articulation of the Si-hia speakers, as there is a somewhat wide range of possibilities in the allied languages. Magar *bu-l*, for instance, might tempt one to restore a Si-hia form **mu-l*; but considering the close affinity of Si-hia with Lo-lo and Mo-so, where we have the base *lu*, I believe we are justified in adhering to a Si-hia word of the type *mo-lu, m-lu*.

23. Si-hia *wei* (perhaps *wöi, wö*) 嵬, dragon = Mo-so *lö, l-wö*, from **lö-wö* (compare Wen-chou *löe* for *luṅ* 龍). The Mo-so element *lö, l-*, has perhaps survived in Tibetan *ạbrug* ("dragon, thunder"), Balti *b-lug*, possibly evolved from **ạbu* ("worm, snake")- *lug* (**lug* = Chinese *luṅ*, "dragon"). It is therefore not necessary to regard A-hi Lo-lo *lo* as a mere loan-word from Chinese *luṅ*, as proposed by Liétard,[1] but Lo-lo *lo* may very well be anciently allied to Mo-so *lö*, Tibetan **lug*, and Chinese *luṅ*. There is a further possibility that this root is connected with the base *lu* ("worm") men-

[1] *Bull. de l'Ecole française*, Vol. IX, p. 557.

tioned afore, if **lug* and *luṅ* be *lu-g* and *lu-ṅ*; that is, if the finals *g* and *ṅ* should not be inherent in the stem, but merely terminating suffixes. This is confirmed by Wen-chou *löe*.

24. Si-hia *ri-ṅ* or possibly *rĩ* (with nasalized *i*) 領, bear = A-hi Lo-lo *rö-mo*, Lo-lo-p^{c}o *vö-mo* (Liétard, *Au Yun-nan*, p. 214); Hua Lisu *wo*; Lo-lo (Baber) *wo*; Mi-ñag (Baber) *re*. Further relationship seems to exist with Tibetan *dred* ("yellow bear") to be analyzed into *d-re-d*, so that the initial *d-* would have to be regarded as a prefix somehow related to Tib. *dom* ("black bear," *Ursus tibetanus*, Sanskrit *bhallūka*).

25. As we note in the preceding example an alternation of *r* and *v* in the Lo-lo dialects, I am inclined to connect Si-hia *ro* 勒 ("wolf") with Nyi Lo-lo *ve* and A-hi Lo-lo *vö-mo*.

26. Si-hia *dzei, zei* (*zöi*) 則夷, panther = Lo-lo *ze, zö*; Mo-so *ze*; Tibetan *g-zi-g*; Lepcha *syi-ćak*.

27. Si-hia *wo* 訛, hog, swine = A-hi Lo-lo *vye*, Nyi Lo-lo and Lo-lo-p^{c}o *ve*, P^{c}u-p^{c}a and Chö-ko *va*; Lisu *a-ve*; Mo-so *bu, bo*; Miao *ba*; Newārī *p^{c}ā* ("boar"); Gešits^{c}a *va*; Tibetan (written language) *p^{c}a-g* (in many dialects *p^{c}a*); Kanauri *fa-g*; Burmese *va-k* (*vet*); Thādo *vō-k*; in Khambu dialects *ba-k*, *p^{c}a-k*, *ba*, *b^{c}a*, *bo*, *po*, *pa*.[1] In view of Mo-so *bu, bo*, the series *mu* of the T^{c}ai languages and Chuń-kia possibly may belong to the same root.[2]

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[1] *Linguistic Survey of India*, pt. III, Vol. I, p. 344.

[2] The coincidence of the type *vak, bak*, etc., with Old Javanese *wök*, Kawi *wĕk*, Sumban *we*, Malayan *babi* ("hog"), etc, is hardly fortuitous. One of the great centres where the domestication of the pig (*Sus indicus*, traceable to the wild form *Sus vittatus*) was brought about in a prehistoric age was located in southeastern Asia, inclusive of Java. This species gradually extended to Yün-nan, Sze-ch^{c}uan, southwestern Kan-su, and farther into Tibetan territory. In Sze-ch^{c}uan and Kan-su it meets with the species of northern China, which, as far as we can judge at present, is the product of an ancient Chinese domestication from indigenous wild material. These zoölogical results may account also for the fact that the Chinese nomenclature relative to swine is perfectly independent, being without parallels in T^{c}ai and Tibeto-Burman.

28. Si-hia *kᶜü*, *čᶜü* 屈, dog = Mo-so *kᶜö*, *kᶜe*, *kü*; A-hi Lo-lo *kᶜi*, Nyi Lo-lo *čᶜe*; Lo-lo-pᶜo *čᶜö*; Mili Si-fan (Davies, *Yün-nan*, p. 360) *čᶜö*; Northern Lo-lo (Davies) *ksö* (from **ki-sö*?); Yün-nan Tibetan (Davies) *tsᶜö*, (Monbeig) *tsö*; Ya-čᶜio Miao and Hua Miao *k-le* (from **ki-le*; Hei Miao *la* ("dog"); Bunan *kᶜyu*; Tibetan, in general, *kᶜyi* (Kᶜams *kᶜye*, Jyaruṅ and Spiti *kᶜi*, Gešitsᶜa *d-ga* and *k-ta*); Digaru *n-kwī*, Dafla *i-kī*, Miri *e-kī*; Burmese *kᶜwē*, Kachin *gwi*. The primeval form seems to be **gi*, *g'i*. I am not convinced that Chinese *kou*, *ku* 狗 belongs to this series.

29. Si-hia *tsai-šu* (*tsai-šuai*), *dzai-šu* 宰率, rat. The first element appears to be related to Mo-so *dse* ("rat"), Tibetan *tsi*, *tsi-tsi* ("mouse, shrew"), Bunan *myu-tsi* ("rat, mouse"),[1] Burmese *čwet* (written *krvak*). The word seems to be imitative of the animal's voice (compare Malayan *tikus*, "mouse," Javanese *tjit*, "piping of the mouse;" Sikkim *tiṅ-rjiṅ*, "shrew;" Turkish *syčkan*, *syčan*, Kirgiz *čičkan*, "mouse;" Magyar *cziczkány*, "shrew"). Lo-lo *e* and Chö-ko *a-i* (stem *i* with prefix *a*) correspond to Tibetan *byi*. The second element of the Si-hia compound is presumably identical with Chinese *šu* 鼠 ("rat, rodent").

30. Si-hia *lo-wo* 勒訛, hare = Lo-lo *lo*: Lo-lo-pᶜo *a-lo* (*lo* with prefixed *a*), *ti-h-lo*, and in the cycle *ta-lo*;[2] Nyi Lo-lo *a-š-la*; Mo-so *to-le*. The element *wo* of Si-hia *lo-wo* possibly is akin to the second element of Tibetan *ri-boṅ*, *ri-voṅ* (Tromowa and Sikkim

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[1] In Kami, *myu* means "rat" (Houghton, *J.R.A.S.*, 1895, p. 137).

[2] Liétard, *Au Yun-nan*, p. 230; the element *ta*, as shown by the phonetic variations *ti* and *to* in the cognate idioms (perhaps also Siamese *kă-tay* belongs to the series) is indigenous. Lo-lo-pᶜo *ta-lo*, accordingly, bears no relation to Mongol *taulai*, *tolai*, Kalmuk *tūlai* (from **tabulai*, Old Mongol *tablga*), Yakut *tabisχan*, Orkhon Inscriptions *tabyšγan*, Osmanli *tawšan*, Khitan *tᶜao-li* 涛裏 or 陶里 (K. Shiratori, *Sprache des Hiung-nu Stammes*, p. 44). The case of Nyi Lo-lo *tᶜo š-la*, used in the duodenary cycle for the year of the hare, is different. As rightly observed by P. Vial (*Dict. français-lolo*, p. 201), this *tᶜo* is of Chinese origin (*tᶜu* 兎), as is likewise Siamese *tᶜo* employed in the cycle.

ri-goň); but I do not feel certain of this. Tibetan *-boň* is comparable with Ahom *paň*, Shan *paň-lai* ("hare").[1]

31. Si-hia *la* 辩, stag = Nyi Lo-lo *la* ("*chevrotain*;" *la-re*, "musk"); Lo-lo of T^{c}ung River (Baber) *lö* ("musk-deer"); Mi-ñag (Baber) *lie* (*id.*); Tibetan *g-la* (*id.*); Chinese *lu-k* 鹿 ("stag"). Lo-lo *re* ("musk") seems to tally with Chinese *šö*, *žö* 麝.

32. The designation for the domestic fowl in Si-hia is *wo-yao* 訛要. This is a compound formed by the two synonymes *wo* and *yao*, each of which has the general meaning "bird." As shown by the Si-hia form and by what is found in other Tibeto-Burman languages, Tibetan *bya* ("bird, fowl"), which at first sight appears as a primitive stem-word, has resulted from a contraction of **ba* (*va*) or *bo* (*vo*) + *ya*. In Balti and Purig a glide is still audible between the initial sonant and *y* (*b^{e}ya-po*).

Si-hia *wo* and Tibetan **bà*, *va*, occur in Nyi Lo-lo *va* ("bird"), used only in the written language.[2] In the idioms of Nepal, *wa* is the generic of birds of the fowl kind; Chepaň (*mo-*)*wa* ("bird") and *wa* ("fowl"); T^{c}oču *mar-wo* ("bird"); Limbu *wa-bha-le*; Magar *gwha-bha* (*bha* corresponding to Tib. *p^{c}o*, "male," in *bya-p^{c}o*, "rooster") and *gwa-ja* (correctly analyzed by Hodgson into *g-wa-ja*; regarding *g-* see No. 33); Murmi *hwā-bā*; Sunwār (Darjeeling district) *wo-a*; Khambu *wa-pa* ("rooster"). Kami *ka-va*, *ta-va* (*a-bwi*, "rooster," *va-ā*, *wa-ā*, "to crow");[3] Lepcha *fo*; Kachin *wu*, *u* ("fowl").

Si-hia *yao* and Tibetan **ya* are found in Nyi Lo-lo *ye* ("fowl"), *ye-p^{c}u* ("rooster"), *ye-p^{c}ä* ("hen"); A-hi Lo-lo *ye* (*ye-p^{c}u*, "rooster;"

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[1] It is possible that Tibetan *ri-boň* means "wild ass" (*ri*, "mountain, wilderness;" *boň-bu* or *boň-bo*, "ass"). The long ears form the point of comparison between hare and donkey: compare Nyi Lo-lo *a-šla-la-mu* ("donkey;" literally, "hare-horse"); Persian χergōš ("hare;" literally, "donkey's ear").

[2] P. Vial, *Dictionnaire français-lolo*, p. 78 (see *chauve-souris*). Baber gives for Lo-lo of the T^{c}ung River *wo* ("fowl").

[3] B. Houghton, *J.R.A.S.*, 1895, pp. 116, 118. As to *ka* in *ka-va* compare No. 33.

pᶜu = Tib. *pᶜo*); Lo-lo-pᶜo *yi-pᶜo*; Pᶜu-pᶜa *ya-pᶜu-ma*; Hua Lisu *ai-ya*, White Lisu *a-yö-r*; Mo-so *ā*, *a-me* (compare Pᶜu-pᶜa *e-ma* and Chö-ko *e-me*, beside *za-pᶜo-ma*; Thādo *ā*, "bird," *ā-pī*, "hen"); Murmi *nam-ya*, Guruṅ *nem-ya*; Chin *pᶜa-yå*. As Tibetan *bya* was formerly taken for a stem-word, it was subjected to erroneous comparisons; it cannot directly be correlated, for instance, with Newārī *jᶜaṅ-gal*, as proposed by Conrady (*Causativ-Bildung*, p. 105), in which the element *gal* coincides with Sog-pa *tᶜa-kol*, and *jᶜaṅ* with Kirānti *ćoṅ-wā*. On the other hand, we meet in Newārī and also in Pahrī a form *jᶜa-ña*, which seems to be the antecedent of the contraction *jᶜaṅ*. As *jᶜa* corresponds to *ya* in other languages of Nepal, we may equalize the two forms, which answer to **ya*, with the second element of Tibetan *bya*; Central Tibetan *jᶜa*, *jᶜya*, however, is a recent affair, developed from *bya*, — a specific Tibetan home-affair which has nothing to do with Newārī *jᶜa*. [1]

33. Si-hia *ku-kiä*, *gu-giä*, *gu-gʻä* (*ku-kiai*) 姑皆, phœnix (in Buddhist texts presumably for the designation of the Garuḍa). The literal meaning of this compound is "the bird *gu* (*ku*);" for the second element is identical with Nyi Lo-lo *ge* ("bird, fowl"), Black Lisu *a-ke* ("chicken"), Hor-pa *gyo*, and Magar *g-wa-ja* (see No. 32). This base appears also in Mi-ñag *ge-ji* ("bird") and Mo-so *gi-ā* ("duck;" *ā* borrowed from Chinese *ya* 鴨), and further points to the Tᶜai languages: Shan and Dioi *kai*, Siamese and Laos *kᶜai*, White Tai *kêi* ("bird, chicken"), developed from **gai* (Annamese *ga*), Chuṅ-kia and Hua Miao *kai*; and to Chinese **gi*, *ki* 鷄 ("fowl,

[1] The Si-hia word for "egg" is unfortunately not given. It is a felicitous suggestion of B. Houghton (*J.R.A.S.*, 1896, p. 36), in view of radically different words for "egg" in Tibetan (*sgo-ña*) and Burmese (*u*), taken with the diversity of the name for the domestic fowl in the two languages, that the fowl was not kept by the Burmans in prehistoric times prior to their separation from the Tibetans. Even in the Lo-lo dialects the words for "egg" are at variance: Nyi *šla*, A-hi *tᶜo*, Lo-lo-pᶜo *fu*, Black Lisu *a-le-fu*, Hua Lisu *ai-ya-kᶜu*. Tibetan *sgo-ña*, *sgoṅ-ña*, or *sgoṅ*, appears in the written language of the Mo-so as *gö*, to which *a-ku*, *a-kvu*, of the oral language, is perhaps related.

rooster"), Cantonese and Hakka *kai*, Kuei-chou *gi*. As to formations analogous to the Si-hia compound, compare Nyi Lo-lo *k^{c}iä-ge* ("pheasant"). The first element *gu, ku,* appears to be identical with Tibetan *go-bo* ("eagle;" stem *go*), Tibetan *g-lag* ("eagle," from **go-lag*), Kanaurī *g-ol-ṭ^{c}ös* ("vulture"), Mo-so *ko-n, ko-n-do* ("eagle"), Lepcha *ko-juk gé-bo fo* ("a species of eagle"). The last named cannot be identified with Tibetan *k^{c}yab-ajug dge-ba*, as proposed by GRÜNWEDEL (*Lepcha Dictionary*, p. 26), but Lepcha *ko-juk* is the phonetic equivalent of Tibetan *k^{c}yuṅ*, evolved from **go-juṅ*, *go-yuṅ*, the element **go* being identical with *go* ("eagle"). Tibetan *k^{c}yuṅ* was heretofore known to us solely as a rendering of Sanskrit *garuḍa*, but, as demonstrated by Kanaurī *k^{c}yuṅ pyā* ("eagle")[1] and by the very phonetic development of the word itself, it originally had the significance "eagle." The Si-hia compound, accordingly, means "eagle-bird."

34. The Si-hia word for "heaven" is *mo* 沒, and that for "sun" is *mo* 墨. As these two Chinese characters represent a sound-combination *mo* of the same tone (the entering lower one), the two words, separated in the glossary, apparently are identical, the single stem *mo* combining the two significances "heaven" and "sun." This state of affairs is confirmed by Lo-lo, where we meet the same base *mu* in the same tone and with the same duplicity of meaning, as well as by Mo-so *mu, mö*. It is obvious that the Si-hia word for "sun" has nothing in common with Tibetan *ñi-ma*, which Mr. Ivanov has added to it, or with Chinese **ǯi-t*, *ñi-t* 日, coincident with Tibetan *ñi*. The affinity of Si-hia, in this case, decidedly points to Lo-lo and Mo-so In Mo-so, "heaven" is *mu, mö* (written language also *mu-n*); in A-hi Lo-lo *mu*; in Nyi Lo-lo, the vowel is but dimly sounded, so that P. VIAL writes *m(u)*, while

[1] T. G. BAILEY, *J.R.A.S.*, 1911, p. 335.

Liétard [1] transcribes the corresponding word in P^{c}u-p^{c}a *m*$^{\flat}$. This *m* enters into composition with *k*^{c}*e*, *k*$^{c\prime}$*ä* in Nyi Lo-lo *m*^{u}-*k*^{c}*e*, *m*^{u}-*k*$^{c\prime}$*ä* (Hua Lisu *mu-kua*), and with *ti* in Chö-ko (*m-ti-ma*). The former presents an exact analogon with Tibetan *m-k*^{c}*a* ("heaven"), which accordingly is evolved from **mu-k*^{c}*a*. [2] In Jyaruń we have *te-mu* ("heaven"). The Lo-lo-p^{c}o dialect has combined the base *mö* with *ñi-mo* (= Tib. *ñi-ma*, "sun") into *mö-ñi-mo* ("heaven"), and employs the same compound *mö-ñi* in the sense of "sun." The base *ñi* becomes *ni* in P^{c}u-p^{c}a (*ni-zö-ma*) and Chö-ko (*ni-ma*). [3] A-hi Lo-lo has *mu-ño* for "sun," besides *li-ki*; [4] Mo-so (written language) *mö* ("sun"). In Black Lisu *mu-ts*^{c}*a* and White Lisu *mö-č*^{c}*a* the meaning is perspicuous, being "heat of heaven" (*ts*^{c}*a*, "hot" = Lo-lo and Tibetan *ts*^{c}*a*). The same root covers much ground also in the Burmese languages: Karen *må*, *ta-må*, Yintale *ta-mü-n*, other dialects *tü-mu*, *mü mü-ṅ*; [5] Kachin *la-mu*.

35. Another Si-hia word, although I cannot trace it in Lo-lo or Mo-so, may be discussed in this connection, as it belongs to the same semasiology. This is transcribed in Chinese *ku*(*gu*)*-yü-mo* 骨魚沒, and is translated by Mr. Ivanov "supreme Heaven." The character *mo*, as, for instance, also in *lo-mo* 羅沒 = *!om* = Tibetan *k*^{c}*ron-pa*, *k*^{c}*rom-pa* (see No. 114), serves to denote a final *-m*. The combination *ku-yü*, written in the same manner, is intended also for the numeral "five," which may be restored to

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[1] *Bull. de l'Ecole française*, Vol. IX, p. 550.

[2] These comparative considerations, again, refute the unwarranted opinion that Tibetan *mk*^{c}*a* should be a Sanskrit loan-word (see *T*^{c}*oung Pao*, 1914, p. 101); on the contrary, it is a dissyllabic compound framed from Indo-Chinese elements. The element *k*^{c}*a* appears in Kami as *k*^{c}*å*, *k*^{c}*u*, *k*^{c}*u-suń*, and *k*^{c}*au-sani*.

[3] The Lo-lo dialects make a far-reaching use of the stem *mu* in the terminology relative to atmospheric phenomena: *mu-ho* and *a-mu-ho* ("rain"), *mu-hlö* and *a-mu-ši* ("wind"), *mu-dö* ("thunder"), *mu-llo* ("lightning"), etc. Compare also E. Huber, *Bull. de l'Ecole française*, Vol. V, 1905, p. 324.

[4] The element *ki* perhaps coincides with the prefix *ke-* in Jyaruń *ke-ñi*.

[5] *Gazetteer of Upper Burma and the Shan States*, Part I, Vol. I, p. 650.

k-ñü, *k-ñu* (see above, p. 13). In the same manner, the transcription *ku-yü-mo* leads to the restitution *k-ñum* or *g-ñum*, which in my opinion may be correlated with Tibetan *d-guṅ* and *g-nam* ("sky, heaven") and Burmese *koṅ-kaṅ*.

36. Si-hia *mo* 沒, fire = A-hi Lo-lo *mu-tö*, *mö-te*, Nyi Lo-lo *mu-tu*, P^{c}u-p^{c}a *mi-to* (Lo-lo-p^{c}o and Lisu *a-to*; that is, stem *to* with prefixed *a*-), Chö-ko *bie-tu*;[1] Mo-so *m'ö*, *mi*; Tibetan *mö*, *me*; Lepcha *mi*; Newārī *mī*; Khambu dialects *mi*.

37. Si-hia *tsei*, *dsei*, *jei* 則移, water = Nyi Lo-lo *je*, A-hi Lo-lo *yi-j'e*, Lo-lo-p^{c}o *vi-dye* (*dye* from **je*);[2] Mo-so *jie* (beside *gi*); Lisu *a-čia*, *i-čia*; Dhimal *či*; Limbu *čua*; Mišmi *m-č^{c}i-n*; Jyaruṅ *ti-či* (a dissyllabic split of the primitive form; also in Chinese *šwi* 水 we have the *i*-vowel); Li-fan Tibetan *tse*. The last two forms are nearer to the Si-hia and the Lo-lo series than *č^{c}u* of the Tibetan written language, which represents a later stage of development; but also in Tibetan we have the base *či* (*tši*) in *g-či-n* ("urine");[3] compare Kachin *n-sin* ("water"). Lepcha *ji-t* ("urine"), derived from the same root, is certainly identical with the Si-hia and Lo-lo type for "water," *jei*, *je*. There can be no doubt also that the aspirate of Tibetan *č^{c}u* is secondary, and that *č^{c}u* has been evolved from **ču*, *ju* (*t-šu*, *d-žu*), still preserved in the derivation *b-ču-d* ("juice, sap");[4] Newārī *čo* ("urine"). Tibetan *č^{c}ab*, the word for "water" in the respectful and elegant language, seems to be a

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[1] As indicated by Miao-tse *tö* ("fire"), the element *tu*, *to*, *te*, in Lo-lo, is an independent word meaning "fire," so that the above compounds consist of two synonymes.

[2] Considering Karen *tö*, in cognate languages *ti* and *tai* (*Gazetteer of Upper Burma and the Shan States*, Part I, Vol. I, p. 652), Kami *twi*, *tü*, and *tui*, Thādo *tui*, Jyaruṅ *ti-či*, Miao-tse *t-le*, Kanaurī *ti* (*Linguistic Survey of India*, Vol. III, pt. 1, p 428), we probably have to assume a primeval form **d-že*, *t-še*, from which the type *je*, *či*, etc., was evolved.

[3] In view of the Chö-ko form *zi* ("urine"), it seems admissible to associate the Lo-lo series of the same meaning (A-hi *zo*, P^{c}u-p^{c}a *a-zo*, Lo-lo-p^{c}o *še-vi*) with Tibetan *g-či-n*.

[4] Also in *b-ču*, *b-ču-s* ("to scoop water").

compound, presumably formed by contraction of *čᶜu* + *bab* ("to flow;" compare *ạbab-čᶜu*, "river, rain"), as we have *snabs* ("mucus, snivel"), from **sna-bab-s* (literally, "nose-flowing").[1] Also Tibetan *šwa* ("flood"), *čᶜar(-pa)*, "rain," and *m-čᶜi-l-ma* ("saliva") seem to belong to the same root.

38. Si-hia *wei*, *wö*, *bö* 爲, snow = Mo-so (written language) *be*, (coll.) *m-be* (from **mu-be*); Nyi Lo-lo *va*, A-hi *uo*, *wo*; Shan and Laos *nam m-we* (from **mu-we*); Lisu *wa*; Bunan *mu*; Chepaň *če-pu* ("ice"); Newārī *čvā-pom* (from **če-va-pom*); Tibetan *kᶜa-ba*, *kᶜa-wa*. This case bears out the interesting fact that *-ba*, the second element of the Tibetan word, is not the affixed particle *ba*, but is an independent base meaning "snow;" as in West-Tibetan "snow" is called *kᶜa*, the combination *kᶜa-ba* (*kᶜa-wa*) presents a compound consisting of two synonymes. Moreover, Tibetan *kᶜa* is evolved from **ga*: the latter base occurs in *gaňs* ("snow, ice, glacier"); *gaňs* is to be analyzed into *gaň-s* (*-s* being a suffix), and *gaň* is a compound contracted from **ga-aň*, for in Bunan we have the base *aň* as independent word for "ice." The latter notion is expressed in Milčaň by *pam*, *paň*, which accordingly presents a contraction of **ba-aň*, **ba* being identical with the above base *be*, *wa*, *wo* for "snow." The Milčaň word sheds light also on Newārī *čvā-pom* (from **če-va--pom*), which is a triple, and eventually even a quadruple compound. Finally the question may be raised whether Chinese *piň* (from **biň*, Annamese *baň*) 冰 ("ice") does not belong to the same group.

39. Si-hia *lö*, *lo*, or *ro* 勒, wind = Nyi Lo-lo *mu šʸ-le*, A-hi Lo-lo *mu h-lo* (or *h-lö*);[2] Burmese *le*, Kachin *la-ru* ("storm"),[3] Ahom *rau*, *raw* ("air, atmosphere"). The Si-hia stem-word has survived in the prefix *r-* of Tibetan *rluň* ("wind") and *rdzi* ("wind"), which

[1] Conrady, *Indochin. Causativ-Bildung*, p. 107.

[2] The form *h-lo* is evidently a contraction of **he-lo*, as shown by Lisu *me-hei*, *mi-hi* ("wind").

[3] Kachin *m-boň* ("wind"), evolved from **mu-boň* (*mu* = Lo-lo *mu*).

accordingly are developed from **ro-luň* and **ro-dzi*. Comparison with Bunan *laň*, Burmese *luṁ*, Ahom and Shan *lum*, *lōm*, Siamese *lom*, Chuň-kia *rum*, *röm* ("wind"), bears out the fact that Tibetan **ro-luň* is a compound formed by two synonymes, each conveying the notion "wind." Mo-so *ör* [1] is obviously identical with Tibetan *ur* ("roar of a tempest"), to which possibly also the element *ru* of Kachin *la-ru* belongs; presumably Tibetan *ur* is only a metathesis of *ru* = **ro* ("wind").

40. Si-hia *le*, *lo* 勒, earth, field = Mo-so *le* ("field"), Hua Miao *liai*, Hei Miao *li*, Ya-čᶜio Miao *lie* (S. R. Clarke, *Among the Tribes in South-West China*, p. 312); Lušai and Lai *lo*, Raňkᶜol *loi*, Kami *la*, *le*, Meitei and Thādo *lau*, Shö *lai*, Burmese *lay-yā* (*le*); Red Karen *lyā*, *kē-lā*; Leň-ki Miao *le* ("earth"); Khamti *la-ňuin* ("earth"); [possibly Shan and Ahom *na* ("field"); Siamese and Chuň-kia *na*;] Chepaň *b-lu* ("cultivated field": Hodgson, *The Phœnix*, Vol. III, p. 46); Tibetan *k-lu-ň-s* ("cultivated land, field, a complex of fields").

41. Si-hia *lu* 盧, stone. This word occurs in the compound *lu-yi* ("mineral coal;" *yi* 乙 means "charcoal"), corresponding in sense to Tibetan *rdo-so*. [2] The word *lu* answers to Mo-so *lu*, *lö*, *lu-n*, *lu-pa*; Nyi Lo-lo *lu-ma*, A-hi Lo-lo *lo-mo* or *lo-po*, Lo-lo-pᶜo *lo-di*, Pᶜu-pᶜa *lo-ka*, Chö-ko *lo-ma*; Black Lisu *lu-ti*, White Lisu *lo-ti*; Karen *lå*, Yintale *lo-n*, Manö *lü*, in other dialects of this group *lo*, *lo-m*, *lo-m-tu*; [3] Kachin *n-loň*; Khambu dialects *luň*; [4] Lepcha *laň*, *luň*; Mišmi *m-p-la*; Newārī *lo-ho*; Tᶜoču *γo-lo-pi*, Sok-pa *čᶜi-lo*;

[1] Transcribed *h'eur* by M. Bacot (*Les Mo-so*, p. 52).

[2] Coal is nowhere found in Tibet. It is known there, however, as a produce of China, as noticed at Si-ning and other marts and border-places.

[3] *Gazetteer of Upper Burma and the Shan States*, Part I, Vol. I, pp. 650, 651. Possibly also Siamese *pᶜloi* ("jewel") belongs to this group. The element *tu* is related to *do* in Tibetan *r-do*.

[4] *Linguistic Survey of India*, Vol. III, pt. 1, p. 346.

Jyaruñ *ru-gu*; Tibetan *r-do*, from **lu-to*, *lu-do*, *ru-do*, or *ra-do* (Bunan *ra*, Milčaň *ra-g*, *ra-k*; Ya-čᶜio and Hua Miao *re*, "stone").

42. Si-hia *si*, *zi* 西, grass = Mo-so *zi*; Bunan, Milčaň and Kanaurī *čᶜi*; A-hi Lo-lo *hi*; Nyi Lo-lo *še*, Lo-lo-pᶜo *šö-ba*; Lo-lo of Tᶜung River (Baber) *jih-pa*; Meng-hua Lo-lo *šo*; Yün-nan Tibetan (Davies) *su*, (Monbeig) *tsoa*; Central Tibetan *tsa*; Ladākhī and Lahūl *sa*; Balti and Purig *r-tswa* (*tsua*), *s-tswa*; Tibetan written language *rtswa*; Chinese *tsᶜao* 草, Hai-nan *šau*.

43. Si-hia *fu* 縛 (probably to be restored to *bo*, *vo*; *fo*?), flower = Mo-so *bo-bo*, *ba-ba*; A-hi Lo-lo *vi-lo*, Nyi Lo-lo *vi-lu*, Lo-lo-pᶜo *ve-lu*; White Lisu *su-wei*, Hua Lisu *su-wye* (Newārī *s-woň*); Kirānti (*buň-*)*wai*; Gyami *kᶜwā*; Milčaň *u*; Karen *pᶜō*; possibly also Chinese *hua*, *hwa*, *fa* 花, as proposed by Mr. Ivanov.

44. Si-hia *čᶜi-ma* 吃麻, orange. This word corresponds to Nyi Lo-lo *čᶜu-se-ma* and Tibetan *tsᶜa-lum-pa*. According to a phonetic law (see Phonology, § 1), Si-hia *čᶜi* is the equivalent of Tibetan *čᶜa*, *tsᶜa*. It is reasonable to suppose that the term in the three languages is a loan-word, but its history is still obscure. In A-hi Lo-lo, the name for the orange is *hua-ko*, explained by Liétard [1] from Chinese *huaň kuo* 黃菓 ("yellow fruit").

45. Si-hia *tsu-ni* 卒尼, man, homo (*ni* being a suffix) = Nyi Lo-lo *tsᶜo*, A-hi Lo-lo *tsᶜu*, Lo-lo-pᶜo *tsᶜa*, Black Lisu *tsᶜou-tsa*, White Lisu *tsᶜo-tsa*, Hua Lisu *la-tsᶜu-n*; Pᶜu-pᶜa *čö*, Chö-ko *a-čö*; Mo-so *zu-ču* (*zu* = A-hi *zo-pᶜo*, Lo-lo-pᶜo *u-čö*[1]*-me*, Pᶜu-pᶜa *za*, Burmese *sû*, ʒo, "vir"); Leň-ki Miao *tsi-ne*. Further relationship may exist with Manyak (Hodgson) *čᶜo* ("man"), Tibetan *tsᶜo* ("number, host"), plural suffix of living beings and pronouns, and possibly with Chinese *tsu-t*, *tswo-t* 卒 ("servant, retainer, soldier," etc.). In Lepcha,

[1] *Bull. de l'Ecole française*, Vol. IX, p. 557.

the males of some animals are expressed by *a-tsu*, as, *luk* ("sheep"), *luk-tsu* ("ram"); *món* ("pig"), *món-tsu* ("boar").[1]

46. Si-hia *gu-tsu* (*ŋu-tsu*, *wu-tsu*) 吾祖 or 兀卒, king. This is the Si-hia term for "king," handed down in the Annals of the Sung Dynasty (*Sung shi*, Ch. 485, p. 8). This title was officially adopted in 1032 by King Li Yüan-hao 李元昊,[2] and is said to have the meaning of *khagan* 可汗. The reasons why I prefer the reading *gu* are prompted by the results of linguistic comparison, as stated below, and by the fact that Rashid-eddīn calls the King of Tangut تنكقوت Lung-šādir-ghū لونك شادرغو.[3] Lung-šādir appears to be intended for his name, while *ghū* is his title ("king"). Parallels to the Si-hia title we meet in Nyi Lo-lo *ts^{c}ie ko-ts^{c}o* (*"chef de village"*)[4] and *o-ko-ts^{c}o* (*"homme de la tête" = chef*).[5] The Lo-lo word *ts^{c}o* means "man," and as the corresponding Si-hia word is *tsu* (No. 45), we are perfectly justified in identifying with it the second element of *gu-tsu*. The attribute "the man, the male" in the royal title is very similar to the *p^{c}o* in ancient Tibetan *rgyal-p^{c}o*.[6] Si-hia *gu* belongs to the base **go* ("head, chief") that we find in Tibetan *m-go* ("head"), *a-(m-)go-pa* ("head man, chief, alderman"), *go-ŋi-ma* ("a superior, emperor"); Nyi Lo-lo *ge-mu* ("king, emperor"), A-hi Lo-lo *ŋö-ma*, *rö-mu*, *wo-mö* (these variants illustrate very well that Si-hia *gu* could have been sounded also *ŋu*, *wu*; *gu*, at any rate, represents the older form, and *ŋu*, *wu*, a subsequent development; at the same time, these phonetic variants of A-hi

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[1] G. B. Mainwaring, *A Grammar of the Rong (Lepcha) Language*, p. 25.

[2] G. Devéria, *L'Ecriture du royaume de Si-hia*, p. 17.

[3] F. v. Erdmann, *Uebersicht der ältesten türkischen Völkerstämme nach Raschid-uddin*, p. 62 (Kasan, 1841); E. Blochet, *Inscriptions turques de l'Orkhon*, p. 51.

[4] P. Vial, *Dict. français-lolo*, p. 344 (see *village*). Regarding *ts^{c}ie* ("village") see No. 47.

[5] *Ibid.*, p. 79.

[6] *T^{c}oung Pao*, 1914, p. 102, note 2.

testify to the correctness of the equation here proposed); and Mo-so *gi-bu* ("king").

47. Si-hia *tsö-ni*, town. This word is known to me only from the note given by M. Pelliot in *Journal asiatique* (1914, mai-juin, p. 506). Mr. Ivanov has equalized the Si-hia word with a Tibetan term transcribed by him in Russian *dzon*; this is intended for *dzoň*, written language *r-dzoň*. Mr. Ivanov certainly does not visualize the Tibetan word *groň*, as supposed by M. Pelliot; and Mr. Ivanov, as will be seen presently, is quite right in his conception of the matter. First of all, the Si-hia word *tsö-ni* (stem *tsö*, *ni* being a suffix) corresponds to Nyi Lo-lo *ts^{c}ie* ("village") and to the first element in Mo-so *je-nua* ("village"); Ahom *če* ("town"), Shan *če* ("province"); Tibetan *ts^{c}o* in *yul-ts^{c}o*, *groň-ts^{c}o* ("village"). A-hi Lo-lo *k^{c}ye* ("village"), in all probability, is derived from a different base; and, as shown by the compound *k^{c}ye-ra-mo* (Liétard: "*bourg*"), is connected with Tibetan *k^{c}yer* in *groň-k^{c}yer* ("town"). Tibetan *k^{c}yer*, *k^{c}ye-r*, is a contraction of **k^{c}ye-ra*, exactly corresponding to A-hi *k^{c}ye-ra-mo*, and consists of the bases *k^{c}ye* ("house," from which also the word *k^{c}yi-m*, "house," is derived; primeval form **gi*, *g'i*) [1]

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[1] Tibetan *k^{c}yim* ("house") has been brought together with Burmese *im* by B. Houghton (*J.R.A.S.*, 1896, p. 44). In the Kuki-Chin languages, with the exception of Mei-tei, it is *im* or *in*. The Mo-so word for "house" is given by M. Bacot in the form *gi*. In Bunan, "house" is *gyum* (Lepcha *k^{c}yum*, Abor *e-kum*, and Meitei *yum*, show likewise the *u*-vowel). Mo-so and Bunan have preserved the original initial sonant; and in view of Moso *gi* and Burmese *im*, we are bound to presume that Tibetan *k^{c}yim* is evolved from **gi-im* or *gi-yim* (Bunan from **gi-yum*, compare Meitei *yum*), the aspirate surd being a subsequent development. Newārī *č^{c}em* and Thādo *čen* ("house") have arrived at the same stage as Tibetan *k^{c}yim*. Tibetan **gi*, further, corresponds to Chinese **gia*, *kia* 家 and Hei Miao *gie* ("house"). In regard to the change of initial guttural sonant into surd compare Chinese **gü* (*kü*) 懼 ("to fear"), Bunan *gyar-čum* with Ahom *kū*, *küw* (Shan *kuw*) and Tibetan *s-krag-pa*. In the same manner as *k^{c}yim*, also Tibetan *lam* ("road") is a compound formed from **la-am*; for in Newārī we find *la* ("road") beside *lam*, and in Bunan *am*, *am-tsi*, *om*, Milčaň *om* ("road"); Tibetan **la* is presumably identical with *la* ("mountain-pass"), so that *lam* would mean "road leading over a pass," practically the only kind of road in Tibet.

and *ra* (*ra-ba*), "enclosure, wall, pen, fold." The word *kᶜyer*, accordingly, signifies an "assemblage or block of houses." [1] Si-hia *tsö* (probably to be restored to *dzö*, *jö*) is finally found also in Tibetan *rdzoṅ*, which doubtless is divisible into *r-dzo-ṅ* and evolved from **ra-dzo-ṅ* (**ra* = *ra*, "enclosure"). The usual pronunciation in Central and Eastern Tibet is *joṅ*. [2] There is, in all probability, further relationship with Chinese **dzoṅ*, *joṅ* (*dziaṅ*, *ziaṅ*) 牆 ("wall"). Rashid-eddīn narrates that the people of Tangut have dwelt in towns and steppes since oldest times.

Two other Tibetan words merit consideration in this connection,—*groṅ* ("town") and *kᶜrom* ("market, bazar"). Both apparently represent parallels developed from the same base, **gi-roṅ* (*rom*), *roṅ* and *rom* being identical. Both the primeval form **gi* and the later development **kᶜi* are encountered in the cognate languages: No-su Lo-lo *gi kao*, Kuei-chou Chuń-kia *gei*, Kuang-si Chuń-kia *heo* ("market;" S. R. Clarke, *Tribes in South-West China*, p. 310); Ya-čᶜio Miao *ki*; Nyi Lo-lo *kᶜe*, A-hi Lo-lo *čᶜö*; Ki-lao *kᶜö*, Hua Miao *kᶜü* ("market"); Kuki-Chin: Lai-kwa, Raṅkᶜol *kū*, Thādo and Lušai *kᶜua*, Meitei *kᶜū-l* ("village"). Tibetan **roṅ*, *rom*, may be compared with Kachin *ma-reṅ*, *ma-re* ("village;" *ma* being a prefix), Burmese *rwā*.

48. Si-hia *čᵛi* 直, flesh = Mo-so *šᵛi*, *še*, *šö* (written language *šᵛü*, *šᵛe*, *šᵛi*); Mi-ñag (Baber) *šᵛi*; Tibetan *ša*; Kachin *ša-n*; Burmese *a-sâ'*; Chinese *žou*, **yu-k*, *ñu-k* (Japanese *šᵛiku*) 肉; Lo-lo (Nyi *ra*; A-hi *ho*, *po-ho*) is different, but Lo-lo of Tᶜung River (Baber) *šᵛi-ni*. Note

[1] From what has been said about the development of *kᶜyim* it follows that the primeval type of *kᶜye-r* must have been **g'e-r*, *ge-r* (*ge-ra*). This **ge-r* I believe I recognize in the name of the border-fortress *Liger* ليكر, which, according to Rashid-eddīn, was situated in the realm of Tangut, and was destroyed by Chinggis.

[2] Mr. Walsh (*J.R.A.S.*, 1915, p. 466) is quite right in saying that "a *dzong* in Tibet is not merely a fort, but a district, of which the fort is the headquarters of the administration under the Jong-pön." As shown by the etymology of the word, it originally designated a fortified ("walled," *ra*) place.

that both Si-hia *či* and Chinese *žou* have the deep tone, while Tibetan *ša*, owing to the change of the initial, is high-toned. Chinese *ki*, *či* 肌 ("flesh"), on account of being high-toned, cannot come into question for comparison.

49. Si-hia *la* 粹, tongue = A-hi Lo-lo *lo*; Black Lisu *la-čᶜue*; Ahom *lī*, Shan *li-n*; Guruṅ, Murmi, and Sunwār *le*; Magar *le-t*, Ṭōṭo *le-be*, Vāyu *li*, Lepcha *a-li* (with prefixed *a*), Lušai *lei*; Gešitsᶜa *v-le*; Bunan *l-he*; Burmese *lhyā*, Karen *p-li*.[1] Tibetan *lče*, as demonstrated by the facts of the cognate languages, is a compound evolved from **le* + *če* (*je*), each of these components signifying "tongue." The second element, *če*, is encountered in Mo-so *či*, Sharpa (Darjeeling) *če-lak*, Thāmi (Darjeeling) *či-le*, Yün-nan Tibetan *j'e-le*,[2] Jyaruṅ *de-š-mí*, Chinese **džiet*, *žiet*, *še* 舌 (Hakka *še-t*, Canton *šu-t*, Fukien *sie-k*), Lo-lo-pᶜo *še-ve*; Lo-lo of Tᶜung River (Baber) *šie*.

Another Tibetan word for "tongue" is *ljags*, now assigned to the respectful style of speech (*že-sai skad*). Its origin is now clearly indicated by the phonetic writing *l-ja-g-s*, evolved from **le-ja* (**ja* = *če*, *je*), to which the consonants *-g-s*, terminating nouns, are affixed. The prefix *l-* in the verb *l-dag-pa* ("to lick") has doubtless sprung from the base *le* ("tongue").

50. Si-hia *la* 膈, hand = Mo-so *la*; Nyi Lo-lo *le-pᶜe*, A-hi Lo-lo *lye-pö*, Lisu *le-pe* (Hua Lisu *la-kua*); Kachin *la-ta*, *la-pan*; Pahrī *lā*; Newārī *lā-hā*; Tromowa and Sikkim *la-ko*; Tibetan *la-g*; Taungyo (Karen language) *la-k*.

51. Si-hia *kᶜo* 刻, foot = Mo-so *kᶜö*, *kᶜu* [A-hi Lo-lo *kᶜi-bye*?]; Hor-pa (Hodgson) *ko*, Sok-pa (Hodgson) *kᶜo-il*; Li of Hai-nan *kᶜo-k*; Kami and Shö *kᶜo* (also *a-kᶜo* and *a-kᶜu-t*); Meitei *kᶜo-ṅ*; Thādo *kᶜu-t* ("finger"), *ke-ṅ* ("foot"); Lušai *ke*; Burmese *kᶜre*; Kachin *la-go-ṅ*.

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[1] Newārī *me* is isolated.

[2] The two forms *či-le* and *j'e-le* are merely inversions of Tibetan **le-če*.

The primary base is **go*, preserved in Kachin, further in Kanaurī *gu-d* ("hand, arm"), and in Old Chinese **gu-k* 脚 ("foot"); it further appears in Tibetan *a-gro* ("to go, walk"), *gro* from **go-ro* (**ro* also in *a-grul*, from **go-ru-l*), and in Mišmi *mgro* ("foot"), from **me-go-ro*.

52. Si-hia *kᶜo-i* 刻移, boot. Probably a derivation from *kᶜo* ("foot").

53. Si-hia *mei*³ 每, eye = Lo-lo-pᶜo *me-du* (Bhūtān *mi-do*, Sok-pa *nü-tu*); Mo-so *mö*, *m'ö*; Lisu *mie-su*; Jyaruṅ *d-mye*; Newārī *mi-kᶜā*; Chinese *mu-k* 目; Tibetan *mi-g*; Kirānti *ma-k*; Burmese *mya-k*, *mye-t*; Thādo *mi-t* (*mū*, *mū-k*, "to see"). The base is **me*, *mi*, etc. (compare also Tibetan *me-loṅ*, "mirror," Takpa *me-loṅ*, according to Hodgson, "eye;" Hor-pa *mo*, Manyak *mni*, from **mo-* or *me-ni*; Kachin *myi*; Chinese *mou* 眸, "pupil of the eye," and *mou* 瞀, "near-sighted," derived from the same base). In the Si-hia word for "lungan," *wöi-mei*, which means "dragon's-eye," being a literal translation of the Chinese term *luṅ-yen*, the word *mei* ("eye") is written *mei*² 梅. It is not, however, a difference in tone which is here intended, but it seems that the classifier 木 was added to the phonetic element merely for the purpose of indicating to the eye the botanical character of the term.

54. Si-hia *mo*⁴ 墨 eyebrows = Chinese *mei*², *mi*² 眉; Tibetan *s-mi-n-ma*; Newārī *mi-sa*. The Lo-lo and Mo-so terms are not on record. On p. 1232, Mr. Ivanov states that "eyebrows" is *mo-ma*, so that we should have the same affix as in Tibetan.

55. Si-hia *si* 息, liver = Nyi Lo-lo *se*; Mo-so *se-r*; Jyaruṅ Tibetan *te-šie*; Tibetan written language *m-čᶜi-n*, from base **či*; Kanaurī *či-pur* and *ši-ṅ*; Newārī *sya-lā*.

56. Si-hia *čᶜi* 吃, gall = Nyi Lo-lo *če*, A-hi Lo-lo *i-ki*; Tibetan *m-kᶜri-s*; Lepcha *kᶜi-bo*; Kachin *ša gri*.

57. Si-hia *mo* 沒, lip = Lo-lo-p^{c}o *me-čo*; Tibetan *m-č^{c}u*, evolved from **me-* or *mo-č^{c}u*. Nyi Lo-lo *ñi-p^{c}u* and A-hi Lo-lo *ni-p^{c}ye* are independent words.

58. Si-hia *č^{c}ui-ko* 垂箇, tooth. This word represents the combination of two synonymes, each with the meaning "tooth." Si-hia *č^{c}ui* is not related to Tibetan *so*, as stated by Mr. Ivanov, but is akin to Nyi Lo-lo *č^{c}e-ma*, Hua Lisu *ts^{c}é-čʉ-r*, Lo-lo of T^{c}ung River (Baber) *ji-ma*; Shan *k^{c}iw*, Ahom *k^{c}riw*; Tibetan *ts^{c}e-m-s*, Burmese *ʒwà*, Chinese *č^{c}i* 齒. The element *čʉ* of Hua Lisu answers to A-hi Lo-lo *ča-rö* or *ča-ho*, and to the second element in Lo-lo-p^{c}o *so-čo*. The latter compound plainly shows that the series with initial sibilant is distinct from that with initial palatal surd. The element *šo* in Lo-lo-p^{c}o *so-čo* certainly is identical with Tibetan *so*, Gešits^{c}a *šo*; it further occurs in P^{c}u-p^{c}a *su*, Chö-ko *su-ma*, Mo-so (written language) *še*, and in the languages of Nepal: Gurun *sa*, Murmi *s-wā*, from **sa-wa* (Newārī, Takpa, and Pahrī *wā*), Magar *śyāk*, Ṭōṭō *si*. The word *ko*, forming the second part of the Si-hia compound, is met in Mi-ñag (Baber) *fu-k^{c}wa* ("molars"), Karen *ku-kö*, Manö *ku-ki*, Yintale *ta-kai*;[1] Siamese *k^{c}iau*, Shan *k^{c}io*, Laos *kiu*.[2]

59. Si-hia *wo-wei* 訛味, stomach, abdomen. This is a compound formed by two synonymes, that are found in the same manner in La-hu Lo-lo (Davies) *wop-pe* (for *wo-pe*). The first element, *wo*, occurs in Tibetan *p^{c}o-ba* (*p^{c}o-wa*), Tromowa *p^{c}o*, Yün-nan Tibetan *a-po*; Lepcha *pu-p*, *ta-fu-k* ("abdomen"); Red Karen *p^{c}ū*, Burmese *wam-pü-k*, *po-k*; Kuki-Chin group: Meitei *pu-k*, Lušai *pu-m*, Lai *på*. The second element, *wei*, is found in Chinese *wei*^{4} 胃, "stomach" (note the identity of tone with *wei*^{4} 味), Nyi Lo-lo *e-pi* ("abdomen"), in other Lo-lo dialects *vi-mu*, Thādo (Kuki-Chin) *wai*, *oi*.

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[1] *Gazetteer of Upper Burma and the Shan States*, Part I, Vol. I, p. 648.

[2] *Ibid.*, p. 630; and Maspero, *Bull. de l'Ecole française*, Vol. XI, p. 167. Perhaps further relationship exists with Amoy *ge*, Ningpo *ńo*, and Cantonese-Hakka-Fukien *ńa*, *ńʻa* 牙.

60. Si-hia *ño* 𗍫, back. This formation is isolated, as far as the initial guttural nasal is concerned, which in the cognate languages answers to *g*: Mo-so *gu-dse, gö-se*; Lepcha *ta-gu-m*; Tibetan dialects *g'a-p, g'e-p,* written language *r-gya-b*; Guruṅ $g^{c}o$.

61. Si-hia *wu-yi, u-yi, u-i* 勿移, backbone. The first element is presumably related to No. 60; in this case *-i* is a suffix (see Morphological Traits).

62. Si-hia *no* (*lo*) 羅, disease = A-hi Lo-lo *no,* Nyi Lo-lo and Tibetan *na* (Tibetan also *na-d*), Burmese *nâ.*

63. Si-hia *tsö-wei* (*wö*) 則胃, hatchet. The nearest approach is Baber's Mi-ñag *wo-tsa* ("axe") with inverted members; for the Lo-lo of T^{c}ung River he gives *wu-ma*; compare Chö-ko *sa-va,* Kachin *niṅ-wa.* In Nyi Lo-lo *ra-tsu* (*"hache"*), *ra* corresponds to Si-hia *wei*; and *tsu,* to *tsö* (regarding the interchange of *w* and *r* compare Nos. 24 and 25); A-hi Lo-lo *ö-ts^{c}ö*, Lo-lo-p^{c}o *a-tso,* P^{c}u-p^{c}a *sa-čʻu.* Compare further Tibetan *tog-rtse, tog-tse, tog-tsö* ("hoe"), Yün-nan Tibetan *tar-rö* (common Tibetan *sta-re*); Thādo *tū-tsū* ("hoe"). Chinese *pu, fu* 鈇, 斧 ("axe") may be grouped with Si-hia *wei,* Mi-ñag *wo,* Lo-lo *wu.*

64. Si-hia *le, lo* 勒, heavy = Lo-lo-p^{c}o *li*;[1] Kachin *li*; Mo-so *li, lia*; Black and White Lisu *a-ke-li,* Hua Lisu *li*; A-hi Lo-lo *h-lö*; Nyi Lo-lo *l-je*; Tibetan *l-čʻi,* evolved from **le-* or *li-čʻi*; Bunan *li-ko*; Kanaurī *li-k, li-g*; Milčaṅ *li-hig.*

65. Si-hia *mi* 迷, high = Mo-so *me-šʻa-šʻa,* Lo-lo of T^{c}ung River (Baber) *a-mo-so*; Nyi Lo-lo *mu,* A-hi Lo-lo *mo*; La-hu Lo-lo (Davies) *mwa*; Tibetan *m·t^{c}o,* from **me-t^{c}o* (the vowels of these restored elements naturally remain uncertain); Burmese *mraṅ, myen, t'wā*; Yün-nan Tibetan *t^{c}wa.* The Mo-so and Lo-lo elements *šʻa, so,* are comparable with Ahom *šʻu-ṅ,* Shan *hsu-ṅ* ("high"); Thādo *a-sāṅ*

[1] A. Liétard, *Au Yun-nan,* p. 222.

("high"). E. H. PARKER (*Up the Yang-tse*, p. 273) notes a Miao-tse word *śa* ("high").

66. Si-hia *na-kü*, *nà-gü* 那局, at night. The second element seems to correspond to Mo-so *mu-ku*, *me-kᶜu* ("night"), *mö-kö* ("evening"), *u-ko* ("midnight"); and Black Li-su *mu-kᶜe* ("night"); Ahom *kᶜü-n*. The Mo-so element *me*, *mu*, answers to Lo-lo-pᶜo *a-mo-čo* ("night"); otherwise the Lo-lo languages have different words: A-hi *so-vu*, Pᶜu-pᶜa *na-si-lya* (*na* possibly related to the first element of the Si-hia word), Chö-ko *si-pa-i*. The equation of Si-hia *na-kü* with Tibetan *nam-guń*, proposed by Mr. Ivanov, is untenable; for *nam-guń* means "midnight" (*nam*, "night;" *guń*, "middle"), while in the Si-hia term *kü*, *gü*, refers to "night," and *na* might well be a pronominal or adverbial element. We meet the latter again in Si-hia *na-lo* ("to-morrow"); compare further Milčaň *na-sam*, "to-morrow" (*sam* = Tibetan *saň*, "to-morrow;" Bunan *zaň-ma*, "day," *bar-saň*, "year").

GROUP III.

Words Related to Lo-lo and Mo-so, without Equivalents in Tibetan and Chinese.

67. Si-hia *lo* 勒, tiger = A-hi Lo-lo *lo*, Nyi Lo-lo *la*, Lo-lo-pᶜo *lo-mo*, Lisu *la-ma*; Mo-so *la*; Manyak (HODGSON) *lêphê*. This series is independent of Tibetan *stag*, Chinese *fu*, *hu* 虎, and the type *su*, *sü*, encountered in all Tᶜai languages (Siamese and Black Tai *süa*, Shan *sü* [*süw*], Ahom *su*, *shū*, Khamti *sü*).[1] A base with initial *s* occurs likewise in Kačāri *mo-sa*, *ma-sa*, and Lepcha *sa-tᶜaň* or *sa-tᶜoň* ("tiger").[2] This word simultaneously shows us that Tibetan *stag* is a compound, which has arisen from **sa-tag*, *sa-dᶜag*. The

[1] MASPERO, *Bull. de l'Ecole française*, Vol. XI, p. 167.

[2] Perhaps also in Lušai *sa-kei*, and Kachin *si-roň*; *-kei* answers to Meitei *kei* and Burmese *kyā* ("tiger").

element *sa* survives in Tibetan *g-sa* ("*Felis irbis*"), the prefix *g-* being identical with that in *g-zig* ("*Felis leopardus*"). The second element, **tag*, *d*ᶜ*ag*, corresponds to Lepcha *t*ᶜ*aṅ*, *t*ᶜ*on*; Newārī *d*ᶜ*ū*, *d*ᶜ*uṁ* (at present *tuṁ*);[1] Wāliṅ *d*ᶜ*in*(*a*)-*ra*; Kami *ta-ka-i* (or *ta-ke-i*);[2] and language of Chᶜu *wu-t*ᶜ*u* 烏菟 or *t*ᶜ*u* (from **du*, *d*ᶜ*u*) 虪.[3]

Also in Tibetan we find a form with initial aspirate surd: *t*ᶜ*uṅ-ña* ("a three-years-old tiger" 三歲虎),[4] which seems to have arisen from *t*ᶜ*u-ña* (**d*ᶜ*u-ña*). While the ancient language of Chᶜu is thus connected with Tibetan and still more closely with Nepal, the *l*-base of Lo-lo, Mo-so, and Si-hia is wedged in between them. This state of affairs is curious, and may raise the question as to whether it may be due to an outside influence upon these languages. In the Mon-Khmêr family we have also an *l*-base for the designation of the tiger: Kuy *k*ᶜ*o-la*, Khasi *la* and *k*ᶜ*la*, Mon and Bahnar *k-la*, Khmêr *k*ᶜ*-lā*, Stieṅ *klah*; Kolh *ku-la*;[5] Palauṅ *la-wai*, Wa *ra-woi*. A derivation of Lo-lo *lo* from this quarter, of very ancient date, seems to me quite possible.

68. Si-hia *ye* 野, sheep, mutton, wether = Mo-so *yo*, *yu*, *yü*; Nyi Lo-lo *jo*, A-hi Lo-lo *ju*; Hua Lisu *a-ju*, Black and White Lisu *a-č*ᶜ*ö*; Min-kia, Mi-ñag and Lo-lo of Tᶜung River *yo*; Jyaruṅ *ke-yó*; Thādo *yao*, *yā-m*. [Possibly related to Hok-lo *yo*, Amoy *ye* 羊 (*yaṅ*).][6]

69. Si-hia *tan*, *dan* 怛, mule. This word certainly is not related to Tibetan *rta* ("horse," see No. 7), as suggested by Mr. Ivanov,

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[1] A. Conrady, *Z.D.M.G.*, Vol. 47, 1893, p. 565; and *Causativ-Bildung*, p. 106.

[2] The *k*-base denoting "tiger" occurs in Tᶜoču *k*ᶜ*oh*, Gyami *k*ᶜ*u*, Jyaruṅ *koṅ* (Hodgson).

[3] Legge, *Chinese Classics*, Vol. V, pp. 117, 297; T. de Lacouperie, *Les Langues de la Chine avant les Chinois*, pp. 18, 19; Chavannes, *Quatre inscriptions du Yun-nan* (*Journal asiatique*, 1909, juillet-août, p. 31).

[4] Thus explained in Kᶜien-lung's Polyglot Dictionary (Ch. 31, p. 5). Jäschke, following I. J. Schmidt, says that it means "three years old, of animals."

[5] Compare E. Kuhn, *Beiträge zur Sprachenkunde Hinterindiens* (*S.B.A.W.*, 1889, p. 213).

[6] An interesting equation is presented by Tibetan *t*ᶜ*oṅ-pa* ("a young ram in the first and second year") and Chinese *t*ᶜ*uṅ* 撞 ("a young ram").

nor to Tibetan *dre* ("mule"), Jyaruṅ *dar-ke*. The latter word apparently is associated with the verb *a-dre-ba* ("to be mixed"), and accordingly means "mongrel." The Chinese word *lo-tse* 騾子 has been widely disseminated over the Indo-Chinese area (for instance, A-hi Lo-lo *lo-dse*, Nyi Lo-lo *a-la-sa*; White Lisu *a-mu*["horse"]-*lo-tzu*; Shan *lâ*, Siamese *la*, Laos *luwa*, etc.), and has transgressed the Great Wall (Mongol *lo-sa*, Niüči *lao-sa*, Manchu *lo-sa*). Mo-so (written language) *ku* appears to be an independent word; but the first element of Mo-so *ten-ja* ("donkey") seems to be in some relation with our Si-hia word; Mo-so *ja* means "horse."

70—71. The Si-hia language possesses two words for "year,"—*kou* 苟 and *wei* 韋. Si-hia *kou* = Mo-so *kᶜu*, *kvu*; A-hi Lo-lo *kᶜu*, Lo-lo-pᶜo *kᶜo*; Black and White Lisu *kᶜo*, Hua Lisu *čie-kᶜo*; Lo-lo of Tᶜung River (Baber) *koa*; Pᶜu-pᶜa *kwe-so-mo*, Chö-ko *ta-ko*; Burmese *ku*. Si-hia *wei* (perhaps *bei*) = Chuṅ-kia of Kuei-chou *bi*, of Kuang-si *bei*; Ahom *pī*, Siamese and Shan *pi*; Li of Hai-nan *po*, Tai of Phu-qui *suay*;[1] Old Chinese *s-wai*; Fu-kien *s-wui* 歲 (as phonetic *wei*); Ya-čᶜio Miao *sö*, Hua Miao *su-ṅ*.

72. Si-hia *tsu* 祖, winter = Mo-sò *tse-lu* (*lu* = Si-hia *lu*, "season"); Nyi Lo-lo *tsᶜe*, A-hi Lo-lo *jye*; Hua Lisu *mu-tsᶜu*.

73. Si-hia *nöṅ*, *nõ* 能, spring = Nyi Lo-lo *nä*; A-hi Lo-lo *ni*; Mo-so *ñi*.

74. Si-hia *čᶜiṅ-ni*, *čᶜĩ-ni* 頃尼, summer = Mo-so *je*; Nyi Lo-lo *ši*; Hua Lisu *mö-ši*.

75. Si-hia *nie*, *ñe* 烈, mouth = Nyi Lo-lo *ñi-ña*, A-hi Lo-lo *ni-pᶜye*, Hua Lisu *me-ne*, Mo-so *nö-ta* (compare also Magar *ñer*, Ṭōṭō *nui-gaṅ*); perhaps also Ahom *na*, Shan *na* ("mouth, face").[2] This element has shrunk into a prefixed consonant in Pᶜu-pᶜa *n-to* and Chö-ko *n-ku*. The element *to* in Pᶜu-pᶜa *n-to* is apparently identical

[1] Maspero, *Etudes sur la phonétique hist. de la langue annamite*, p. 45.

[2] E. H. Parker (*Up the Yang-tse*, p. 272) notes a Miao-tse word *ngha-niou* ("mouth").

with the second element in Mo-so *nö-ta*, with Pahrī *to*, and Newārī *mhu-tu*. The Lo-lo-p^{c}o word *me-ku* is different from that in the other dialects, the element *ku* being identical with the first element in Black and White Lisu *k^{c}ua-p^{c}ei* (perhaps also Chinese *k^{c}ou* 口 and Tibetan *k^{c}a*).

76. Si-hia *wu-ki* 勿卽 (probably *wu-gi* or *bu-gi*), kidney = Nyi Lo-lo *ju-ghe*. The element *wu*, *bu*, is possibly related to Jyaruṅ *po-ta* ("kidney").

77. Si-hia *k'ä-i*, *č'ä-i* 皆移, genuine, true = A-hi Lo-lo *če*, Nyi Lo-lo *če*, *je*, Mo-so *čo-n*; Ahom *te* ("truth"). Mr. Ivanov has added to this word the observation, "Tibetan *kie*." Such a Tibetan word is not known to me.

78. Si-hia *na* 那, dog (used only in the duodenary cycle, as far as we know at present) = Lo-lo *a-na*, *a-no* (see No. 175).

79. Si-hia *tsö*, *dsö*, *jö* 則, mountain = Ki-lao *dse*; Lo-lo-p^{c}o *u-tsye-bo*, Hua Lisu *wa-či-la-ku*, Mo-so *ji-na-me*. The element *bo* of the Lo-lo-p^{c}o word occurs as independent word for "mountain" in Nyi Lo-lo *pö*, A-hi Lo-lo *po*, Black Lisu *wa-p^{c}ö*; further, in P^{c}u-p^{c}a *bo-mi*, Chö-ko *ha-pu-ma*, Chuṅ-kia *bo*, Hei Miao *bao*, *biei*, Ya-č^{c}io Miao *bie*, and seems to be allied to Siamese *b^{c}u* (*p^{c}u*), etc.; [1] Thādo *mo-l*. It is fossilized in Li-fan Tibetan *b-se* (from **bu-se*).

80. Si-hia *dsei*, *jei* 則移, south = Nyi Lo-lo *šle-če*, A-hi Lo-lo *hli-ki* (the words *šle* and *hli* mean "wind"); Mo-so *i-č^{c}i-me* (Black Lisu *yi-mö*).

81. Si-hia *la* 粹, north; possibly = Mo-so *lo* in *huṅ-gu lo*. The Lo-lo base is *ma* (A-hi *hli-ma*, Nyi *šle-ma*).

82. Si-hia *wu* 勿, east; possibly = Lo-lo of T^{c}ung River (Baber) *bu-du*. The element *du* refers to the sunrise, as shown by Nyi Lo-lo

[1] Maspero, *Bull. de l'Ecole française*, Vol. XI, p. 159.

ćе-du ("sun rising" = east). Whether Newārī *wam*(*-tā*) may be utilized for comparison seems doubtful. [1]

Group IV.

T^{c}ai Affinities.

83. Si-hia *liao* 料, blood. As far as I know, this word meets its counterpart only in Siamese *lüet* ("blood"). [2]

84. Si-hia *k^{c}o* 客, rice = Siamese *k^{c}ao*, Shan and Ahom *k^{c}au*, White Tai *k^{c}ou*; [3] Leń-ki Miao *kia*; [4] Mo-so *k^{c}ia*; Meng-hua Lo-lo *sà-k^{c}ao*; La-hu *sa-k^{c}a*. [5]

85. Si-hia *mo*, possibly *ma* 魔 ("forest"), meets no parallel in Tibetan or Chinese, or in Lo-lo (Nyi *se-šlai*, A-hi *le-bö*, Lo-lo-p^{c}o *sö-dzö-li*) or Mo-so (*bi-na*, *nau* = Tibetan *nags*), but it is comparable

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[1] The designations for the four quarters in Si-hia—*la* ("north"), *jei*, *dsei* ("south"), *wu* ("east"), *lin*, *rin* ("west")—do not agree with the corresponding names in Tibetan (*byaṅ*, *lho*, *šar*, *nub*). This is not surprising, in view of the fact that there is no coincidence along this line between Tibetan and Chinese and among the Indo-Chinese languages in general. This group of words was evidently formed after the separation of the Indo-Chinese tribes. Tibetan and Burmese have only the word for one quarter of the compass in common; namely, that for the west, Tibetan *nub*, Burmese *nok*, proposed by B. Houghton (*J.R.A.S.*, 1896, p. 34), provided this combination be correct. For Si-hia *liṅ* 嶺 ("west") I have only one parallel to offer, Milčaṅ *niṅ* (A. Cunningham, *Ladák*, p. 403).

[2] Mr. Ivanov transcribes the character in question *hsieh*, and accordingly connects the word with Chinese *hüe* 血.

[3] Maspero, *Bull. de l'Ecole française*, Vol. XI, p. 167.

[4] T. de Lacouperie, *Les langues de la Chine avant les Chinois*, p. 45.

[5] The last two words are contributed by H. R. Davies (*Yün-nan*, p. 361). Davies proposes also to connect this type with the Mon-Khmêr languages: P^{c}u-man *n-k^{c}u* (compare Kachin *n-gu*), Wa *n-gou*, Palauṅ *la-kou*, Khmêr *aṅ-ka*, K^{c}a-mu *un-k^{c}o*, Annamese *gao*, La *kao*. While I do not share the view of Davies that Mon-Khmêr and Indo-Chinese are mutually related, his proposition notwithstanding is highly suggestive, inasmuch as the word may be a very ancient Mon-Khmêr loan-word in the T^{c}ai languages (or *vice versâ*?).—Note that the T^{c}ai word is employed only in some Lo-lo dialects: A-hi *ta-mi* and Lo-lo-p^{c}o *te-mi* have the Chinese word *mi* 米; Nyi Lo-lo has an apparently independent word, *ts^{c}i-se* ("*riz non decortiqué*") and *tsa* ("*riz cuit*"), where the vowel-change for the expression of differentiation in meaning is interesting.

with Leń-ki Miao *ma-le*,[1] and possibly with the series *pa* of the T^{c}ai languages.[2]

86. Si-hia *ma* 麻 ("tree"), which seems to root in the same base as the preceding word, likewise points to connection with the T^{c}ai family: Ahom and Shan *mai* ("wood, tree"), Siamese *mai* ("wood, tree"). Father Th. Monbeig[3] imparts a Yün-nan Tibetan word *ma-den* ("trunk of a tree"); the second element, *den*, is obviously identical with Tibetan (written language) *s-doń*, "stem" (coll. Tibetan *šiń-doń*, "tree;" Murmi *d^{c}oń*, "tree"), so that *ma* would have the meaning "tree." In other Tibetan dialects such a word *ma* is not known to me, and if it should occur only in the Tibetan of Yün-nan, it might well be a loan-word due to Shan influence. In Lo-lo and Mo-so we have a root *se, sö, so, sü*: Nyi *se*, A-hi *se-ts^{c}e*, Lo-lo-p^{c}o *so-dso*, P^{c}u-p^{c}a *su-ma*; Mo-so *se, sö, so, sa* ("wood"), *ndsö, se-n-dsen* ("tree"). In view of Chö-ko *si-ma* (in which the Shan element *ma* may be visible), a relationship of the Lo-lo and Mo-so series with Tibetan *šiń* ("wood, tree") is possible; also in Tibetan dialects, the final guttural nasal is eliminated, for instance, in Jyaruń *śe*. The coincidence of Chö-ko *si-ma* with Newārī *si-ma* ("tree") is very striking.

87. The Si-hia word for "fruit," *ma* 麻, is evidently the same as that denoting "tree," and likewise meets its counterpart in Siamese *ma* ("fruit") and Chuń-kia *lek-ma* (*lek* is numerative).[4] In this case, however, we have a missing link in Nyi Lo-lo *ma* ("fruit").

88. An interesting T^{c}ai element in Si-hia is presented by the word *kun* ("man;" Ivanov, p. 1233, Chinese transcription not being

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[1] T. de Lacouperie, *l. c.* The element *le* is related to *le-bö* of A-hi and *li-dü-ma* of Chö-ko (the *ma* of the latter perhaps is identical with Miao *ma-*).

[2] Maspero, *l. c.*, p. 159.

[3] *Bull. de l'Ecole française*, Vol. IX, p. 551.

[4] P. Vial, *Les Lolos*, p. 34.

given). In the T^{c}ai languages we have Siamese *k^{c}on*, Shan *kon*, Laos *k^{c}on*, Ahom *kūn, kun* ("man"). Perhaps also Tibetan *kun* ("all") belongs to this series.

89. Si-hia *kia, k'a* 假, duck, wild duck = Hei Miao *ka* (S. R. CLARKE, *Tribes in South-West China*, p. 309). The relationship with Chinese *ya, ap* 鴨 ("domestic duck"), proposed by Mr. Ivanov, is difficult to admit.

90. Si-hia *wei-ma* 韋麻, pear (*ma*, fruit). The word *wei* may be connected with Ya-č^{c}io and Hua Miao *ra*, Hei Miao *za* ("pear;" S. R. CLARKE, *l. c.*, p. 312; the *z*, according to Clarke, is "a rough initial sound, indescribable, and must be heard to be appreciated;" these difficult sounds, of which we have as yet no exact phonetic description, are recorded in a state of embarrassment as *z* or *r*; we found several examples where these correspond to Si-hia *w*, see Nos. 24, 25). Lo-lo has independent words: Nyi *se-ćе-ma*, A-hi *sa-li* (*li* Chinese loan-word); *se-ndu* (CLARKE).

GROUP V.

Chinese Affinities.

91. Si-hia *wu* 勿, father = Chinese *fu* 父.

92. Si-hia *ma* 麻, hair = Chinese *mao* 毛. Further parallels are in Guruń (Nepal) *mui*, in Limbu (Nepal) *mū-rī* ("hair of body"), in Saṅpaṅ (a Khambu dialect) *mwa* (in other dialects of the same group *mi, muń, muwa, mua, mui, māa*).

93. Si-hia *pa* 巴, palm of the hand = Chinese *pa* 把, to grasp with the hands; *pa-ćaṅ* 巴掌, palm.

94. Si-hia *kwaṅ-niń* 光寧, neck. The first element of this compound seems to be related to Chinese *köń*, Hakka *kiaṅ* (Korean *kiöń*) 頸 ("neck, throat"); but it is very striking that the Si-hia form closely agrees with Bunan *koaṅ-gul, kwaṅ-gul* ("neck"), where

gul answers to Tibetan *m-gul*. The second element is perhaps comparable with Chinese *liṅ* 領 ("throat") and Lepcha *tuk-liṅ*, *tuṅ-liṅ* ("neck").

95. Si-hia *wu-ni* 勿你, wild animals; possibly = Chinese *wu(t)* 物 ("creature, animal"); Chepaṅ *sva* ("quadruped"). Perhaps also Mo-so *go-ge* ("animal") belongs here.

96. Si-hia *tu*[4] 瀆, bean = Chinese *tou*[4] 荳 (*tu* is possibly a Chinese loan-word in Si-hia).

97. Si-hia *ya* 牙, goose = Northern Chinese *yen* 雁 (Fukien *ṅaṅ*, Cantonese and Hakka *ṅan*; Tibetan *ṅaṅ*).

98. Si-hia *maṅ*, serpent (sixth year of the cycle, but presumably the general word for "snake")[1] = Chinese *maṅ* 蟒, python.

99. Si-hia *čai-ni* 窄尼, fox; possibly = Chinese *čᶜai* 豺. In Lo-lo and Mo-so we have a base with initial *d*: Nyi *o-du-ma*, A-hi *a-dö*, Mo-so *ndra*, and Mo-so written language *da*; *pa*, another word for "fox" used in the latter, apparently is identical with Tibetan *wa* (also *wa-tse*), Bunan *goa-nu*, *g-wa-nu* (Tromowa *am*, *a-mu*; Sikkim *am*); perhaps also Ahom *ma*, Shan *mā-lin*.

100. Si-hia *šaṅ-wei* 尙嵬 (translated by Mr. Ivanov "shirt");[2] the first element *šaṅ* = Chinese *šaṅ* 裳 ("clothes on the lower half of the body").[3] The second element *wei* refers likewise to an article

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[1] This may be inferred from the fact that Si-hia offers a word of its own for "dragon," which is used also in the Si-hia cycle for the designation of the dragon-year, while *maṅ* strictly refers to the year of the serpent. If *maṅ* in Si-hia would denote the dragon, I should not hesitate to regard it as a loan-word. As such we find *maṅ*, for instance, in Niüči *maṅ-lu-wen*, being the equivalent of Chinese *maṅ-luṅ* 蟒龍, in opposition to the native word *mudur* (Manchu *muduri*).

[2] Probably it is "undergarment." The Tibetan tribes and their congeners have no shirts. "Le Lolo ne porte pas de chemise" (P. Vial, *Dict. français-lolo*, p. 79). The coincidence of Chinese *šam* 衫 ("shirt") with Tibetan *šam*, *g-šam* ("lower part of a thing"), *šam-gos*, *šam-tᶜabs* ("lower garment, skirt"), is interesting.

[3] The character transcribing the Si-hia word is the phonetic element employed in the character 裳.

of clothing, for in the chapter on the Si-hia, embodied in the Annals of the Sung, this word *wei*, reproduced by the same character, is explained as "a red, knotted ribbon hanging down from behind the button of the official cap." [1] This certainly is a rather specialized significance, which does not fit the case of *šaṅ-wei*, but we are perhaps allowed to infer from this example that *wei* had also a more general meaning with reference to attire. Further, Si-hia *wei* may be compared with Lo-lo *bä*, *bi* ("coat"): Nyi Lo-lo *šlo-bä* ("*habit*"), *šla-bä* ("*pantalon, c'est-à-dire habit enveloppant la cuisse*"); A-hi Lo-lo *a-bi*, *ka-bi* ("*habit*"), *lo-bi*, *lu-bi* ("*pantalon*") [Mo-so *ba-la*, "*habit*;" Bu-nan *p^{c}os*, "garment, dress"?]; Chuṅ-kia *bu*, Hei Miao *u* ("clothes"); Meitei *p^{c}i*, Kachin *m-ba*, Burmese *a-wat*. The combination of *šaṅ* and *wei* leads me to conclude that *šaṅ*, in the same manner as *wei*, is a genuine old Si-hia word, not merely a Chinese loan-word. Chepaṅ *sum-ba* ("lower vest") [2] is an analogous formation, though I am not convinced that the element *sum* is the phonetic equivalent of Si-hia *šaṅ*.

101. Si-hia *ño, o* 餓, lake (Ivanov: "sea;" compare Tibetan *mts^{c}o*, "lake," *rgya-mts^{c}o*, "sea"). Possibly related to Chinese *hu* 湖, Cantonese *u*, *wu*.

Group VI.

Tibetan Affinities.

102. Si-hia *lu* 六, body = Tibetan *lu*, *lu-s*.

103. Si-hia *wu* 吳, head = Tibetan *wu*, *u* (written *dbu*); Miñag (Babër) *we-li*. The same word occurs in the first element of A-hi Lo-lo *o-ko*, Lo-lo-p^{c}o *u-di*, and Mo-so *wu-k^{c}ua*. The element *ko* in A-hi *o-ko* and Chö-ko *i-ko* (further Mo-so *ku-lü*, *ku-lö*) is apparently identical with Tibetan *m-go* ("head").

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[1] 冠頂後垂紅結綬自號嵬名 (*Sung shi*, Ch. 485, p. 5 b).
[2] Hodgson, *The Phœnix*, Vol. III, p. 45; or *Essays*, pt. 2, p. 51.

104. Si-hia *wu* 悟, centre, central = Tibetan *wu*, *wu-s* (written *dbus*).

105. Si-hia *niṅ* 寧, heart = Tibetan *s-ñiṅ*.

106. Si-hia *o* (*wo*, *ṅo*)-*diṅ* 訛丁, neck (Ivanov), but more probably throat, windpipe = Tibetan *'o-doṅ* (written also *'o-ldoṅ*). The first element of the latter word, *'o*, appears also as *'og* (*'og-ma*, "throat, neck;" *'og-ąjol*, "gullet") and *'ol* (*'ol-mdud*, "larynx"). It is further equivalent to *l-kog*, *r-kog* (*l-kog-ma*, "gullet, windpipe, throat, neck"), which is related to *m-gu-r*, *m-gu-l*, *m-g-rin* ("throat, neck"); that is to say, all these variations are derived from a common base **gu*, *go*, further developed into **ko* and *'o*. There is possible relationship with Chinese *hou* (in dialects *u*, *wu*, *ho*, *hau*) 喉 ("throat, gullet"), Siamese *k^{c}o*, P^{c}u-p^{c}a *ko-bya*, and Mo-so *ki-pa*; Black Lo-lo *ko*; Burmese *kup-jak* (*gok-zet*); [1] compare further Kanaurī *gol-öṅ* and Bunan *sta-gor-wa*.

107. Si-hia *miṅ*, *mĩ* 名, man = Tibetan *mi*.

108. Si-hia *miṅ*, *mĩ* 名, not = Tibetan *mi*; Si-hia *mo* 沒 ("not") = Tibetan *ma*. Compare Canton, Hakka, and Shanghai *m* 唔 ("not").

109. Si-hia *ma šuo* 麻說, river, that is, the River = Tibetan *r-ma č^{c}u*, the Yellow River (Huang ho).

110. Si-hia *p^{c}u* 普, a place of higher altitude = Tibetan *p^{c}u*, upper part of an ascending valley (Si-hia *p^{c}u* is perhaps Tibetan loan-word).

111. Si-hia *k^{c}ia* 恰, magpie = Tibetan *skya-ka*, *skya-ga*.

112. Si-hia *lo-tsei* (*tsö*) 羅賊, species of antelope; *lo* = Tibetan *lug* ("sheep"); *tsö* = Tibetan *gtsod* (*tsö*), *gtso*, *btso* ("*Pantholops hodgsoni* Abel").

113. Si-hia *po* 孛, species of antelope = Jyaruṅ *po*, *ba*; Kanaurī

[1] E. Huber, *Bull. de l'Ecole française*, Vol. V, 1905, p. 325.

p^{c}o and *fö* ("deer"); Ahom *pū* ("a fallow deer"); Tibetan written language *r-go-ba*, *d-go-ba* (Central Tibetan *go-a*), "*Procapra* or *Gazella picticaudata*." [1]

114. Si-hia *lom*, *rom* (*lo-mo*) 羅沒, spring, well = Tibetan *k^{c}-ron-pa* (*k^{c}-rom-pa*), Yün-nan Tibetan *lom-ba* (*Bull. de l'École française*, Vol. IX, p. 550), Lepcha *ram* (compare No. 35).

115. Si-hia *lu* 路, season = Tibetan *lo*, year.

116. Si-hia *na* 那, cereals, barley = Tibetan *na-s*, Tromowa and Sikkim *na*.

117. Si-hia *na* 納, deed, action; possibly = Tibetan *la-s*, Bunan *len*.

118. Si-hia *go*, *ko* 各, form; possibly = Tibetan *go-po* (written *sgo-po*), "the body with respect to its physical nature and appearance." (Ahi Lo-lo *gö-mo*, Lo-lo-p^{c}o *gö-čö*, P^{c}u-p^{c}a and Chö-ko *gu-mo*, "*corps*".)

119. Si-hia *liṅ*, *riṅ* 令, great; perhaps = Tibetan *riṅ*, "long, high, tall" (or rather = Ahom and Shan *luṅ*, "great, large"?). This word *liṅ* doubtless occurs in the two titles of Si-hia officials, *niṅ-liṅ* and *mo-niṅ-liṅ* (G. Devéria, *L'Écriture du royaume Si-hia*, p. 18).

120. Si-hia *sie-niṅ* 薛寧, the day after to-morrow. The first element, *sie*, signifies "following, coming," as shown by the phrase *sie wei* 斜韋 ("next year;" *wei*, "year"). *Niṅ*, therefore, is a noun, and identical with Tibetan *naṅ*(*-mo*), "morning," especially "the following morning;" *naṅs-par*, *naṅ-la*, written language *g-naṅ*, "the day after to-morrow." In like manner Si-hia *yiṅ* 盈 ("light, in weight") corresponds to Tibetan *yaṅ-po*, Lepcha *kyaṅ-bo*. Regarding Si-hia *i* = Tibetan *a*, see Phonology, § 1.

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[1] See M. Dauvergne, *Bull. du Muséum d'histoire naturelle*, Vol. IV, 1898, p. 219. Mr. Ivanov translates the Si-hia word by "yellow sheep" as the literal rendering of Chinese 黃羊; but the latter term corresponds to Tibetan *rgo-ba*, Manchu *jeren*, Mongol *dsegēre*, *dsēre* (K'ien-lung's Polyglot Dictionary, Ch. 31, p. 14).

121. Si-hia *tu* 瀆, fruit; possibly = Tibetan *t^{c}o-g* ("produce, fruit"), *lo-tog* ("annual produce, harvest"). Or the same as *tu* ("bean")? See No. 96.

122. Si-hia *ma-mo* 麻沒, mother = Tibetan *ma* ("mother"), *ma-mo* ("grandmother"). No equivalents in cognate languages are known to me for Si-hia *č^{c}ön* 成 ("mother"). Si-hia *nir* (*ni-lo*) 你羅 ("relatives") possibly is identical with Tibetan *ñer* (*ñe*, *ñen*, *g-ñen*). Si-hia *p^{c}u-bu* (characters not given; certainly it is not *p^{c}u-pu*, as transcribed by Mr. Ivanov), "the ancients," may be akin to Tibetan *p^{c}u-bo*, *p^{c}o-bo* ("elder brother").

Group VII.

Dubious Cases.

123. Si-hia *tsu-ni* 足尼, rain (*-ni* being suffix), has no correspondent equivalent in Lo-lo and Tibetan (Tibetan *č^{c}ar* belongs to the base *či*, *ju*, *ču*, see No. 37). Whether *tsu* can be correlated with Mo-so *šö*, Lepcha *so*, seems doubtful. It is striking, however, that we find an element *tsu* ("rain") in the Karen languages: Yintale *kan-tsu*, Manö *ka-ču*, Karen *ke-tsi* (in other dialects *kan*, *kam*, *kyan*, *kå*, *ka-le*).[1]

124. Si-hia *yiň-na* 迎那, agate. The first element *yiň* may be identical with the Si-hia word *yiň* 迎 ("star"). Whether the element *na* may be identified with Chinese *nao* 瑙, is questionable. The Tibetans transcribe Chinese *ma-nao* as *ma-nahu*; the Mongols have it as *manu*, *mānu*; the Niüči as *ma-nao*.

125. Si-hia *yi*, *i* 移, woman = Kachin *yi* ("female"), Ahom and Shan *ī* ("the youngest of several, young girl"), perhaps also Shan *yiň*, Ahom *ñiň* ("female"). The character 移 has the same tone (even lower) as *i* 姨 ("a wife's sister, mother's sister"); but owing

[1] *Gazetteer of Upper Burma and the Shan States*, Part I, Vol. I, pp. 652, 653.

to the difference in meaning, relationship of the two words seems to me doubtful. The types of words expressing the notion "woman" are widely varying in Indo-Chinese, and even Tibeto-Burman has no word in common for it. A-hi Lo-lo *i-mo* ("female") presents merely a seeming coincidence with Si-hia, for, as shown by *i-po* ("male"), the base *i* means "man" (*-mo* = Tibetan *mo*, "woman, female;" Mo-so *a-mu*), and answers to *ya* in Lo-lo-p^{c}o.[1] Lepcha *yu*, again, is a different word from Si-hia.

126. Si-hia *tsan* 撏, lungs (no relation to Chinese or Tibetan), possibly = Newārī *som*; Nyi Lo-lo *ts^{c}e-p^{c}u-ma*. Other comparative material is not available.

127. Si-hia *tsan* 撏, Chinese. Mr. Ivanov, who transcribes *tza*, suggests relation to Tibetan *rgya*, *rgya-mi*. This is difficult to prove. It is true that *rgya* is sounded at present *gya*, *g'a*, *jya*, and that the character in question was sounded in the T^{c}ang period *ja* and *ča*;[2] but we cannot base our Si-hia readings on the T^{c}ang phonology, still less is there any evidence that the Tibetans of the T^{c}ang period articulated the word *rgya* as *ja* or *j'a*. The most probable assumption is that they pronounced it *gya*. The same Chinese character, that above and No. 126, is employed also for writing the Si-hia word *tsan* ("autumn"), which I am unable to explain through comparative analysis.

128. Si-hia *kwan* 斡, shoulder. This word, possibly, might be connected with Mo-so *kwa-pi* and Chinese *kien* 肩 ("top of shoulder"). On the other hand, Mo-so *koa-pi* may point to Chinese **kiap* 胛 ("part under and between the shoulder-blades"); the case, therefore, is still dubious. There are no corresponding forms in Tibetan or Lo-lo. The element *bu*, *bo*, *po* in Lo-lo (Nyi *bu-k^{c}iä*, P^{c}u-p^{c}a *na-po*,

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[1] Compare Hua Lisu *mu-ts^{c}u* ("woman"), from *mu* ("female") and *ts^{c}u* ("homo").

[2] F. W. K. Müller, *Uigurica*, II, p. 101. It renders *sa* in Sanskrit words (A. von Staël-Holstein, *Kien-ch'ui-fan-tsan*, p. 185).

Chö-ko *na-bo-ma*) may be related to Siamese *ba*, Shan *ma*.[1] A-hi Lo-lo *pᶜa-ñi* may point to Tibetan *pᶜra-g*; and Chinese *paṅ* 髈 may be associated with Tibetan *d-puṅ*, Lepcha *tuk-puṅ*.

129. Si-hia *pu*, *bu* 不, spleen. Related to Newārī *al-pe*? The word is not recorded for Lo-lo and Mo-so; it is independent of Tibetan *m-čᶜer(-pa)*, and Chinese *pᶜi* 脾, which has the lower tone, while *pu* 不 is in the high tone.

130. Si-hia *ṅo-čui-ni* 蒿追尼, chair. *Ni* is a suffix. The element *ṅo* seems to be the same as the word *ṅo* ("back"), transcribed by the same character (No. 60).

131. In the Indo-Chinese languages we meet a common word for "elephant" only in the eastern branch, Tᶜai and Chinese: Siamese *čaṅ*, Shan *saṅ* or *tsan*, Khamti *čaṅ tsaṅ*, Laos *tsaṅ* (Mo-so *tso*, *tso-n*), Palauṅ *san*, Ahom *tyaṅ* (Lepcha *tyaṅ-mo*); Cantonese *tsöṅ*, Hakka *sioṅ*, Fukien *čᶜioṅ* (Japanese *šō*, *dso*), Northern Chinese *siaṅ*.[2] In the western branch of Indo-Chinese there is no common word for "elephant." The Tibetans evidently made the elephant's acquaintance only when they came in contact with India, as shown by their term *glaṅ-čᶜen* or *glaṅ-po-čᶜe* ("big bull").[3] In Nyi Lo-lo we have *a*, in A-hi Lo-lo *ro* (distant relationship with Lepcha *ruṅ-mo*?); Mo-so *tso*, *tso-n*, as indicated above, points to the Tᶜai group. In view of this diversity of words in the western branch of Indo-Chinese, it is not surprising to find a seemingly independent name for "elephant" in Si-hia *mu* 暮. Perhaps this word is related to some such form as Lisu *a-mu*, Chin *mwie*, Kachin *magwi*; but this is doubtful.

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[1] Maspero, *Bull. de l'Ecole française*, Vol. IX, p. 553.

[2] Mongol *dsān* (Buryat *zan*), written *dsagan* (*aga* being a graphic expedient to indicate the length of the vowel: compare *Begē-dsiṅ* = *Pei čiṅ* 北京 [Peking]; *togor* ["peach"] = *tᶜao'r* 桃兒; *lagūsa* or *lagūse* ["mule"] = *lo-tse* 騾子) is apparently a Chinese loan-word.

[3] Also *ba-laṅ* (from *bal glaṅ*), that is, ox of Nepal.

132. Si-hia *čᶜui* 垂, nit. The Chinese word corresponding in meaning is *ki*, *či* 蟣; the Tibetan, *s-ro-ma*; the Kachin, *tsi-ti*. Unfortunately the word is not known to me in other languages, and I therefore hesitate to establish a relationship between the words named, although this seems not to be impossible. As to Tibetan *s-ro*, the element *s-* appears to be related to Lepcha *sa-* in *sa-fyat* ("flea"); and the element *-ro*, to Ahom *rau*, *raw*, "louse" (see No. 6).

133. Si-hia *liṅ* 令, tortoise. The word has no equivalent in Chinese or Tibetan (*rus-sbal*, "bone frog"). The following are merely tentative suggestions: Kami *ta-lī*, Newārī *kāp-li*, Kanaurī *ri-hönts*, Kachin *tau-b-ren* (Ahom, Shan, Pa-yi, and Siamese *tau*, "tortoise").

134. Si-hia *ku-ni*, *gu-ni* 穀尼, flour. Possibly connected with Bunan *kᶜu-g* ("meal of roasted barley").

135. Si-hia *maṅ* 疤, white. This word has no counterpart in Lo-lo, Mo-so, Tibetan, Chinese, or Tᶜai. Perhaps Burmese *màñ*, Thādo *boṅ*, and Chepaṅ *pᶜam*(*-to*), may be enlisted for comparison.

136. Si-hia *fu* (*bu*, *bo*)*-sai* 縛腮, lotus. The first element appears to be identical with the Si-hia word *fu* ("flower"), see No. 43; but it should be pointed out that Ahom *bū* (Shan *wuw*, *muw*) means "lotus, water-lily." See also p. 95.

137. Si-hia *miṅ* 名, lower as to position or altitude. Mr. Ivanov gives another word *miṅ* ("low, small"), but accompanied by a character reading *liṅ* 令. He further compares the latter with a Tibetan word, printed in Tibetan letters as *smeṅ*, and transcribed *me*. I presume that this is intended for Tibetan *smad*, which may indeed be pronounced *me*; this being the case, a relationship of Si-hia *miṅ* with the Tibetan word is hardly apparent. As some confusion has here arisen, judgment should be held in abeyance till we hear again from Mr. Ivanov himself. An application of the word *miṅ* doubtless occurs in the official title *ki-miṅ*, the lowest grade in the Si-hia official hierarchy (G. Devéria, *L'Écriture du royaume Si-hia*, p. 18).

Group VIII.

Words Peculiar to Si-hia.

There are naturally a number of words in Si-hia, which cannot be traced in cognate forms of speech, and which, at least for the present, must be characterized as peculiar features of this language. Those preserved in the Chinese Annals may first be passed under review.

138. Si-hia *se* 厮, sorcerer, shaman, priest (西夏語以巫爲厮也。*Liao shi*, Ch. 115, p. 3). As far as the Indo-Chinese languages are concerned, this word may stand isolated.[1] The Lo-lo and Mo-so use different words for their native medicine-men (Mo-so *to-pa*, *tuṅ-pa*; Lo-lo *pi-mo*). Chinese **bu*, *wu* 巫 ("shaman;" probably connected with **bu-k*, *pu-k* 卜, "to divine") belongs with Tibetan *ɑba* ("sorcerer;" *ɑba-g*, "mask;" *ɑbo-g*, "to sink down in a fainting-fit;" *smyo-ɑbo-g*, "madness"), Ahom *mo* ("a learned man, a Dēodhai or Ahom priest"), and possibly Burmese *rwa* ("witchcraft").

139. Si-hia *wei li* 嵬理. This was the name borne by the Si-hia King Nang Siao or Li Yüan-hao (1032—48) during his childhood, as stated in *Sung shi* (Ch. 485, p. 5 b). According to the interpretation there given, the word *wei* means "to regret, to pity" 惜; and the word *li*, "rich and of high rank" 富貴. These words are not given in our Si-hia glossary.

140. Si-hia *wei* 嵬 or 威 (compare No. 100), a red, knotted ribbon hanging down from behind the button of the official cap (*Sung shi*, *l. c.*; and *Liao shi*, Ch. 115, p. 2 b). The first of the characters given is employed in the *Sung shi*, the second in the *Liao shi*.

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[1] Eitel, in his *Cantonese Dictionary* (p. 419), gives a term "厮屯 *sz-ma*, a witch" (Giles, No. 7871, "necromancers"). The history of this term is not known to me; perhaps this Chinese *se* is somehow connected with the Si-hia word.

This duplicity is striking, as the one has the even lower, the other the even upper tone. The reading presented by the Sung Annals, which is the older work, merits preference.

141. Si-hia *niṅ liṅ ko* 嵬令哥. This was the juvenile name of King Li Liang-tso (1049–67), oldest son and successor to Li Yüan-hao (*Sung shi*, Ch. 485, p. 9). The word *niṅ* is explained in the Annals as meaning "to rejoice in what is good" (歡嘉). The word *liṅ* is said to be the name of the river Liang-ch'a 兩岔河. This may well be the case, but it is not plausible that the designation of a river should enter the personal name of a royal child. As *ko* means "elder brother" (our Si-hia glossary gives this word in the form *a-ko*), it would seem more probable that *liṅ* is identical with the adjective *liṅ* (No. 119), "great," *liṅ-ko* being the "great brother."

142. Si-hia *to-pa* 拓跋, title of the Si-hia sovereigns, said to signify "king of the earth" (G. Devéria, *L'Écriture du royaume Si-hia*, p. 15). It is doubtful, however, whether this etymology is correct; the word in question, in all probability, is not of Si-hia origin.

143. Si-hia *lo* or *ro* 勒, fir-tree. In Tibetan we have *som* or *gsom*, that has been compared with Chinese *suṅ* 松 by Schiefner;[1] but *suṅ* is evolved from **zuṅ*, *dzuṅ*, *duṅ* (Sino-Annamese *tuṅ*, Cantonese *tsᶜuṅ*), and is rather related to Tibetan *tᶜaṅ*, Burmese *tᶜaṅ-rū*, Lepcha *duṅ-šiṅ* or *tuṅ-šiṅ* (*šiṅ*, "tree"); Newārī *tᶜa-sim* (*sim*, *si-mā*, "tree"); Mo-so (written language) *ton*, *tᶜo*; Nyi Lo-lo *tᶜo-se*, Lo-lo-pᶜo *ta dsö*.[2] See also p. 95.

144. Si-hia *yiṅ* 迎, star. The relation with Chinese *siṅ* 星, proposed by Mr. Ivanov, is not convincing: the Si-hia word, as indicated by the Chinese transcription, is in the lower tone, while

[1] *Mélanges asiatiques*, Vol. I, p. 340.

[2] Liétard, *Au Yun-nan*, p. 216. The word *dsö* means "tree." The Polyglot Dictionary (Ch. 29, p. 17) justly identifies Tibetan *tᶜaṅ-šiṅ* with *suṅ* 松.

siṅ has the upper tone, which makes for a net differentiation of the two words; the assonance *iṅ* is not conclusive, the initial sounds are the decisive factors in Indo-Chinese, and a correspondence of Si-hia *y* to Chinese *s*, for the present at least, cannot be established. In my opinion, therefore, Si-hia *yiṅ* is to be regarded as an independent Si-hia word.

145. Si-hia *yao* 要, day. In opposition to Tibetan and Lo-lo *ñi*, Chinese **žĭ-t*, *ñi-t* 日.

146. For Si-hia *la-nu* 粹怒 ("the four stars of the Dipper"), no equivalent in another language is known to me.

147. Si-hia *ko-ni* 葛[1] 尼, owl. The stem *ko* looks like an inversion of Tibetan *ug*; but this means nothing along the line of mutual relationship, as the two words may be conceived as independent formations mimetic of the bird's cry (compare Sanskrit *ulūka*, Latin *ulucus*, *ulula*; Mongol *ugūli*, *ūli*; Persian *kokan*; Kachin *u-kᶜu*; Ahom *kaw*).

148. As to other names of birds, *tsö-ni*, *jö-ni* 則尼 ("wild goose"), *mo-ni* 莫你 ("cuckoo"), *kᶜiṅ* 慶 ("pigeon"), *ta-yaṅ*, *da-yaṅ* 打樣 ("swallow"), *yaṅ-hei* 樣黑 ("raven;" *hei*, "black"), *taṅ-laṅ* 党狼 ("quail"), seem to be word-formations peculiar to Si-hia.

149—150. Si-hia *saṅ* 桑 ("male") and *tu*, *du* 瀆 ("female") appear to be words peculiar to Si-hia. For the latter I find a slight comparative indication in Miao-tse *tsᶜu-to* ("female").[2] As *tsᶜu* means "man" in general, Miao-tse *to* must have the meaning "female." There is, further, *na-tå* ("women") in Chin.[3] The word *saṅ* is

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[1] Mr. Ivanov (p. 1229) prints the character *ko* 各; but in the plate attached to his paper, where a facsimile of two pages of the glossary is given, the character appears as above.

[2] D'Ollone, *Langues des peuples non chinois*, p. 66.

[3] Kanauri has a feminine suffix *-de* joined to verbal forms ending in *či* or *ši*: *čᶜug-ši-de* ("a lady visitor"), *lan-či-de* ("she who wears"); but I do not feel sure that this *-de* is connected with Si-hia *tu*, *du*.

utilized in *wei-saṅ* 嵬桑 ("sparrow"), literally, "male bird;" *wei* ("bird") is inferred from the phrase *čᶜaṅ-ni wei* ("flying birds").

151. Si-hia *yi* 乙 ("charcoal") is isolated. In Tibeto-Burman we find chiefly two stems, one with initial *s* and another with initial *ts*, for expressing the notion "coal:" Tibetan *so-l*(*-ba*), *soᵓ*, *söᵓ* (Yün-nan Tibetan *se-a*); Burmese *mi:-swe*; Nyi Lo-lo *tse-se*, Lo-lo-pᶜo *se-ñi*, A-hi Lo-lo *tsa-sa*; Mo-so *še*.[1]

Other Si-hia words not traceable to allied languages are:

152. *laṅ-to* or *-do* 浪多, younger brother.

153. *čᶜöṅ* 成, mother.

154. *ki* 卽, brain.

155. *tᶜien-čo* 天捉, loam-house.

156. *yi* 移, ladle, spoon (hardly related to Tibetan *kᶜyem-bu, skyog*).

157. *kᶜu* 枯, saw.

158. *tsu* 足 / *mo* 末 } drum.

159. *čio, tsio, kio* 爵, spider (related to Chinese *či* 蜘?).

160. *yü* 玉, silk.

161. *čᶜou-na* 抽那, coin.

162. *yiṅ* 盈, mark, characteristic.

163. *tsiṅ, dsiṅ* 精, law.

164. *mei* 每, virtuous.

165. *sie* 寫, wise.

166. *to, do* 多, true.

167. *niaṅ* (Chinese character not given), word.

168. *liu* (Chinese character not given), world.

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[1] The word *millò*, added by J. Bacot (*Les Mo-so*, p. 34), is composed of *mi* ("fire") and *lo* ("stone"). Likewise Nyi Lo-lo *lu-ma* and A-hi Lo-lo *lo-mo* ("mineral coal") are formed with *lu, lo* ("stone"), in the same manner as Si-hia *lu-yi* (see No. 41).

Group IX.

Technical Terms.

The Si-hia names for the animals of the duodenary cycle merit a special discussion. In this list we meet only two names identical with those for the real animals given in the vocabulary,—*lo* ("tiger") and *wö* ("dragon"), both genuine Si-hia words. In eight cases the names of the cyclical animals vary from the ordinary names for these animals;[1] in two other examples ("serpent" and "monkey"), we cannot decide the status, as the words for the animals are not contained in the vocabulary. Also in the Tibetan cycle, two animals appear with specific terms reserved for the cycle only,—*yos* ("hare;" common word *ri-boň*) and *ts^{c}a* (or *mts^{c}a*)-*lu*[2] ("fowl;" common word *bya*).

169—170. In the same cases Si-hia offers likewise unusual names, —*tsö*, *dsö*, *jö* 則 ("hare;" common word *lo-wo*, No. 30) and *č^{c}aň-ni* 長尾 ("fowl;" common word *wo-yao*). If we were positive that at the end of the twelfth century Tibetan *yos* already had the modern pronunciation *yö*, it might be permissible to correlate Si-hia *jö* with this Tibetan form. The expression *č^{c}aň-ni* is a Si-hia formation: we find in the vocabulary *č^{c}aň-ni wei* (*wöi*) in the sense of "flying birds;" *č^{c}aň*, accordingly, means "to fly," and with the suffix *-ni*, "the flying one."

171. The year of the rat is called *hi*^{2} 攜, while the rat ordinarily is styled *tsai-šu* (see No. 29). The former word seems to be identical with Chinese *hi*^{2} 鼷, which in a poem of Hu Yen 胡儼 of the Ming period appears as name for the year of the rat.[3]

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[1] This is likewise the case in Siamese (see Chavannes, *T'oung Pao*, 1906, pp. 52 and 53, note 2).

[2] This word survives in Jyaruň *pu-ts^{c}a* ("chicken").

[3] Chavannes, *T'oung Pao*, 1906, pp. 56, 57.

172. The year of the ox is *mo* 沒, while "cow, cattle," is *wu*. There is indeed in Indo-Chinese a stem *ma*, *mo*, with the meaning "cattle" or "ox." In discussing the Si-hia word *wu* (No. 4), reference was made to Kami *ma-na* ("buffalo"). There is, further, in Chuń-kia, a word *mo-tlań* ("ox"),[1] the element *tlań* being composed of *t-lań*, *lań* being identical with the base *lań* in Tibetan *g-lań* (Central Tibetan *lań*, Lepcha *loń*, Yün-nan Tibetan *lou*, Lo-lo *lo*, Balti *χ-lań*; as loan-word in Pašai *gō-lāń*[2]), and the element *t-* surviving in Ladākhī *χ-lań-to*, and Tibetan *po-to* ("bullock"), *be-to*, *be-do* ("calf"); so that the Chuń-kia word seems to be evolved from **mo-to-lań*. The prefix *g-*, *χ-*, of Tibetan *g-lań*, likewise was once a full word, which is preserved in Mo-so *gö*, *na-gö*,[3] and in Siamese *kᶜo* (from **go*); hence Tibetan *g-lań* from **go-lań*.[4] Moreover, the *m-* type for "ox" appears in Lo-lo *ńi-mu* (*ńi* = Chinese *ńi*, *niu* 牛; Pᶜu-pᶜa *ńü*, Chö-ko *ńö*), Miao-tse *ńi-ma*, *s-ńi-ma*. Hence it is legitimate to regard Si-hia *mo* as an indigenous word with the meaning "ox, cow, cattle."

As to *yiń* ("horse") see above, p. 27.

173. As regards *mo* 沒, the year of the sheep or goat, it is curious that this word is identical with *mo* ("ox"); the vocalic timbre of the two words perhaps was different. The corresponding Siamese year is *māmä* or *mome* (the latter likewise in Cambodjan), year of the goat. I am inclined to assume a connection (that is, linguistic, not historical) between this and Si-hia *mo*, which would accordingly mean "goat," not "sheep," like the corresponding Tibetan and Mongol years. Compare also A-hi Lo-lo *kᶜi-mo*, Lo-lo-pᶜo *a-čö-mo*, Pᶜu-pᶜa *tsö-ma-la* ("goat").

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[1] P. Vial, *Les Lolos*, p. 36.

[2] Grierson, *Piśāca Languages*, p. 65.

[3] J. Bacot, *Les Mo-so*, p. 32.

[4] For this reason the above Pašai form is not a corruption of Tibetan *g-lań*, as assumed by Grierson (*l. c.*), but is a conservation of the original form of the Tibetan word.

174. The year of the monkey is termed *wei* 韋. Such a word for "monkey" is not found within Tibeto-Burman.[1] It therefore seems permissible to read the word *bei*, *bä*, and to derive it from Turkish *bäčin*, which in the Orkhon inscriptions is used for the year of the monkey[2] (Uigur *bičin*;[3] Mongol *bečin*, *mečin*; Niüči *mo-nen*; Manchu *mo-nio*, *bo-nio*). In Hodgson's Sokpa vocabulary we find as word for "monkey" *meči*, which is assuredly a Mongol loan-word. There are many of these in the same idiom: *tavoso* ("salt") from Mongol *dabusun*, *usu* ("water") from Mongol *usun*, *t'umar* ("iron") from Mongol *tämür*, *č'agan* ("white") from Mongol *tsagān*, etc. Baber's Mi-ñag word for monkey, *mi*, might be derived from the same source, unless it be related to White and Black Lo-lo *miu*, Müng *miau*, Burmese *myok* (*myauk*).

175. The year of the dog is *na* 那, while the general word for "dog" is *k'ü*. *Na* is a Si-hia word for "dog," for we encounter the same stem-word in Lo-lo with prefixed *a-*: Li-p'a and Li-su *a-na*; Lo-lo-p'o, Kö-sö-p'o, Ke-sö-p'o and Li-p'o *a-no*.[4] It further occurs in Murmi (Hodgson) *na-ñi* and Guruñ *na-gyu*.

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[1] My first impression was to connect Si-hia *wei* with Siamese *wok*, year of the monkey (the common word for "monkey" in Siamese is *liñ*); but on account of the final *k*, which is absent in Si-hia, I have abandoned this theory.

[2] Radloff, *Wörterbuch der Türk-Dialecte*, Vol. IV, col. 1625.

[3] Aside from its Turkish ending *-čin*, this word certainly is not of Turkish origin; *bä-*, *bi-*, may have been derived from Greek *πήθων*, *πίθηκος* (from which also Old Slavic *pitikü* comes) at the time of the dissemination of the Hellenistic cycle over Central Asia. J. Halévy (*T'oung Pao*, 1906, p. 294) derives the Turkish word from Persian *pūzineh* or *būzneh*, which does not sound very probable.

[4] A. Liétard, *Bull. de l'Ecole française*, Vol. IX, pp. 563—567. The form *a-no* is indicated also by d'Ollone, *Langues des peuples non chinois*, p. 60. Side by side with *a-no*, the word *č'ö* (corresponding to *k'i* of A-hi, *k'yi* of Tibetan, and *k'ü* of Si-hia) is employed in Lo-lo-p'o (Liétard, *l. c.*, p. 551); in the Lo-lo-p'o cycle, however, the word *č'ö* is utilized (Liétard, *Au Yun-nan*, p. 230). The Lo-lo-p'o cycle, as given by A. Liétard (*l. c.*), contains ten genuine Lo-lo words for the animals, and two borrowed from Chinese,—No. 6 *ya* from Chinese *yaṅ* 羊 ("sheep" in Lo-lo is *jo*, *ju*, and this word is used in the Nyi Lo-lo cycle; "goat," *k'i*, *ts'i*; final Chinese *ṅ* and *n* are dropped in Lo-lo [*Bull. de l'Ecole française*, Vol. IX, p. 557; and *Au Yun-nan*, pp. 201—204]); and No. 7 *myo*, year of the

176. The year of the hog in Si-hia is *yü* 玉 ("hog" in general being *wo*; the corresponding Lo-lo word *ve* is applied to the cycle). The word *yü* shows no relation to any equivalent in the cycle of outside languages, nor can I trace its existence in other Indo-Chinese idioms. It may be, therefore, an autochthonous Si-hia formation.

177. As to the Si-hia designations of the Ten Cyclical Symbols (*ši kan* 十干), we are confronted with a puzzle. The Tibetans have rationally transcribed the Chinese names as follows: *gya* (*g'a*), *yi*, *biṅ*, *tiṅ*, *wu*, *kyi* (*k'i*), *giṅ*, *zin*, *žim* or *žiṅ*, *gui*. Si-hia, however, offers the following series: *nai*, *liṅ* (*riṅ*, *rĩ*), *mi*, *wei*, *wei*, *ts^{c}i*, *lai*, *k^{c}o*, *nai*, *nu*. There are two homonymes in this series, 1 and 9 both being *nai* 乃, and 4 and 5 both being *wei* (*wö*) 嵬, certainly to the disadvantage of the system. All that can be said for the present is that the Si-hia people seem to have exerted their own ingenuity in framing this series, that shows no resemblance to the Chinese prototypes on which it is based.

Group X.

Loan-Words.

A. Chinese Loan-Words.

178—179. There are a certain number of Chinese loan-words in articles of clothing, in names of fruits and other objects imported from China. These, and others also, have been indicated by Mr. Ivanov: [1]

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monkey, where Nyi Lo-lo has the regular word *nu*. I am inclined to regard *myo* as being derived from Chinese *mao*, *myao*, *myo* 猫 ("cat"). Lo-lo-p^{c}o and A-hi apparently possess no word for "monkey;" Nyi has *a-nu*, P^{c}u-p^{c}a *a-no*, Chö-ko *a-si* (*Bull.*, *l. c.*, p. 552),—evidently mere descriptive epithets of the animal. *Myo*, at any rate, is not a Lo-lo word.

[1] In a few cases, Mr. Ivanov has drawn also upon Mongol for the explanation of Si-hia words denoting bodily parts. At the outset, an influence of Mongol upon Si-hia could not be disavowed, though we are ignorant of the state of the Mongol language in that time when our Si-hia vocabulary was edited (1190). Si-hia *k^{c}o* ("foot") is connected by Mr. Ivanov with Mongol *kül*; in fact, however, we have a stem *k^{c}o* meaning "foot" within Indo-Chinese: Mo-so *k^{c}ö*, *k^{c}u*, etc. (see No. 51). It is therefore not necessary to

for instance, *tiṅ* or *diṅ* 丁 ("lamp") from *töṅ* 燈;[1] *kiai-i* (presumably *χ'ai-i*) 皆夷 ("shoe, slipper") from *χai* 鞋 (also in Chuṅ-kia *hai*, Hei Miao *ha*, Tibetan *χai* and Mongol *χei*). It seems unnecessary to me, however, to derive Si-hia *kᶜo-i* ("boot") from Chinese *hüe* 靴, as proposed by Mr. Ivanov. Aside from the phonetic difficulties of the case, Si-hia *kᶜo-i* appears as a legitimate derivation from Si-hia *kᶜo* ("foot"), No. 51, the suffix *i* being endowed with the same function as in *ro-i* ("saddle"), from *ro* ("horse"). Also in the Lo-lo idioms, the word for "boot" is based on that for "foot:" Nyi Lo-lo *čᶜe-nö* (literally, "*pied-exhaussement*"), A-hi Lo-lo *kᶜi-no*, Lo-lo-pᶜo *kᶜye-no*. The combination of Si-hia *kᶜu* 枯 ("saw") with Chinese *kü* 鋸 seems to me doubtful, and a derivation of Si-hia *tsu* 足 ("drum") from Chinese *ku* 鼓 appears to be out of the question.[2]

180. Si-hia *yao* 藥 ("furnace") is hardly connected with Chinese *tsao* 竈, as conceived by Mr. Ivanov, but rather with Chinese *yao* 窯 ("kiln, furnace"),—a word adopted also by Mongol in the form *yō*.

181. The fact that the Chinese loan-words in Si-hia are not written in every case with the proper Chinese characters for these words, but that different symbols are chosen for them, does not militate against the conclusion that they are nothing but loan-words; for it is not necessary to assume that their status as loan-words rose into the consciousness of the author of our vocabulary or of

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assume that Si-hia *kᶜo* is a Mongol loan-word. Si-hia *wu-i* ("backbone") is compared by Mr. Ivanov with a Mongol word written by him *ui*; Kovalevski, in his *Mongol Dictionary* (Vol. I, p. 551) has a word *üye* ("joint, articulation"). This combination is not very convincing either; and as *-i* is a suffix that occurs in Si-hia, I prefer to think that *wu-i* is an original word-formation of this language (No. 61). Si-hia *wu* ("cow") certainly bears no relation to Mongol *ükür* and Turkish *ut*, as proposed by Mr. Ivanov, but is a genuine Indo-Chinese word and the legitimate equivalent of Tibetan *ba* (see No. 4).

[1] This word was adopted by several other languages. In Pᶜu-pᶜa we find it in the form *a-teṅ* with prefixed *a* (*Bull. de l'Ecole française*, Vol. IX, p. 554). In Buryat it occurs as *diṅ* with the meaning "candle" (Schiefner in Castrén, *Burjat. Sprachlehre*, p. xiii). In Malayan we have *tiṅ* ("lamp").

[2] If a loan-word at all, Si-hia *tsu* would rather seem to come from Chinese *ču* 柷.

the Si-hia speaking population in general. This is well evidenced by the transcription *mao³r* 貌兒 ("cat"), which, as justly recognized also by Mr. Ivanov, certainly is a Chinese loan-word and the equivalent of 貓兒.[1]

182. Of color-designations, *hei* (*ha*, *ho*) 黑 ("black") has been received from Chinese.

183—184. Among fruits, we find *hiṅ* 杏 ("apricot"), *Prunus armeniaca*, a native of China;[2] and *šwi-ma* 水麻 (*Diospyros kaki*), from Chinese *ši* 柿,[3] transcribed in Tibetan *se*; possibly also *tu* ("bean") from *tou* (see No. 96).

185. Si-hia *čᶜu-liṅ*, *čᶜu-lĩ* 出令, plum. As *čᶜu* has the upper tone, it may be permissible to correlate it with *čo¹* in Lo-lo-pᶜo *se-čo¹-dsŏ* ("*prunier*").[4] The element *se* of the latter word occurs in Nyi Lo-lo *se-ka-ma* ("*prune*") and Hua Lisu *se-li*. The second element of the latter word is indeed identical with Chinese *li* 李 ("plum"), and for this reason I am inclined to regard also Si-hia *liṅ*, *lĩ*, as a Chinese loan-word. We find the latter also in Mongol (*lise*).

186. Si-hia *čᶜu-li* or *čᶜu-ri* 出梨 ("vinegar"), as justly observed by Mr. Ivanov, is borrowed from Chinese *tsᶜu* 醋, in the same

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[1] The example is interesting for another reason: we note that *érh* was used as a diminutive suffix in Chinese at the end of the twelfth century.

[2] A. DE CANDOLLE, *Origin of Cultivated Plants*, p. 217; BRETSCHNEIDER, *Bot. Sin.*, pt. 2, No. 471.

[3] Mr. Ivanov gives as translation "*hakki*," a word which does not exist, and which I believe is a misprint for *kaki*. In regard to another plant I cannot make any statement, as Mr. Ivanov does not specify the meaning exactly. This is *tsᶜüan-ni-na* 全尼那, a plant for which only the botanical term *Solanum esculentum* is given as equivalent. This term is now obsolete, and was formerly applied to the potato, the tomato, and the egg-plant. Since the first two are strictly American plants, they cannot come into question here; thus the supposition remains that the egg-plant (in Chinese *kᶜie* 茄) may be intended. I hope that Mr. Ivanov will clear up this point in his further studies of Si-hia.

[4] A. LIÉTARD, *Au Yun-nan*, p. 216. The word *dsö* means "tree."

manner as Tibetan *ts^{c}uu*. The determinative element *li* or *ri* seems to be a Si-hia addition. If *č^{c}u* is a Chinese loan-word, the supposition advanced by Mr. Ivanov (p. 1225) is not justified, that *č^{c}u-li* should have terminated in *-l* or *-r*, "especially as in Tibetan 'acidity' is styled *skyur*." Si-hia *č^{c}u-li*, however, has no connection with this Tibetan word which means "sour" (note what Jäschke remarks on the unfamiliarity of Tibetans with vinegar), and which presents a contraction from *skyu-ru*, *skyu-r* (compare Tromowa *kyu-pu*, *kyum*; Sikkim *kyum*; Bunan *šu-ri*).[1] If the Si-hia word were to be read *č^{c}ur*, an element *lo* or *lu* would have been chosen for the transcription of *r* (compare *nir*, written *ni-lo*, No. 122), not, however, *li*; and this hypothetical *č^{c}ur* could certainly not be correlated with Chinese *ts^{c}u*. It seems quite reasonable to read *č^{c}u-ɹi* or *č^{c}u-ri*, and to look upon *č^{c}u* as a Chinese loan-word.

187—188. Si-hia *ts^{c}un* 寸 ("inch") and *šön* 聖 ("holy") are likewise derived from Chinese.

B. Sinicisms.

Besides Chinese loan-words, we meet in Si-hia with certain terms presenting literal translations into Si-hia of the corresponding Chinese terms. Such are found in the field of astronomy.

189. Si-hia *mo-jei* 沒則移 ("galaxy") is composed of *mo* ("heaven") and *jei* ("water, river"), being a rendering of Chinese *t^{c}ien ho* 天河, while Tibetan has a seemingly native term in *dgu-ts^{c}igs* or *dgu-ts^{c}igs skya-mo*; Nyi Lo-lo has *če-k^{c}a* ("road of dew"), and Lepcha *lóm toṅ* ("highroad") or *lum toṅ lum-ba*.

190—193. The Si-hia names of the planets *k'ä yiṅ* 皆迎 ("gold star," Venus), *jei yiṅ* ("water star," Mercury), and *mo* 沒

[1] The Polyglot Dictionary (Ch. 27, p. 12) has coined an artificial Tibetan word, *skyur-ɟ^{c}u* ("sour water, vinegar"). Manchu *jušun* is likewise borrowed from Chinese; and so is Ordos Mongol *očи*.

yiṅ ("fire star," Mars), are modelled in imitation of Chinese *kin siṅ* 金星, *šui* 水 *siṅ*, and *huo* 火 *siṅ*.[1] The name for "Jupiter," *si yiṅ* 西迎, forms an exception, *si* being a transcription of Chinese *sü* 戌 or *sui* 歲 with following *siṅ* 星.

194. Si-hia *mo-wo* 沒訛 (*Anas galericulata*, the mandarin duck) is composed of *mo* ("heaven") and *wo* ("bird"), and looks like an imitation of Chinese *t'ien ngo* 天鵝 ("wild swan").

195. Si-hia *wei*(*wö*)-*mei* 嵬梅 (*Nephelium longan*) means "dragon's eye," being a literal rendering of Chinese *luṅ-yen* 龍眼.[2] In the same manner the Tibetans have translated the Chinese term as *ạbrug-mig*; the Mongols as *lū-yin nidu*.[3]

C. Tibetan Loan-Words.

196. Si-hia *šu*(*šuai*)-*kᶜuai* 率塊, coral. The character *šuai* is used in the transcription of Si-hia words on two other occasions,—in *mou-šu* (No. 21) and *tsai-šu* (No. 29). As the second element, *kᶜuai*, is written 塊, it may be nothing but this Chinese word meaning "a piece." The Mongol word *širu* (written also *bširu*), Kalmuk *šuru* and *šūr*, and Manchu *šuru* ("coral"), are justly regarded as loan-words based on what is written in Tibetan *byi-ru*[4] or *byu-ru*, but articulated *j'u-ru*, *šu-ru*; there is, further, *šo-lo* ("coral") in Mo-so, and *šu-li*, *šu-lig*, in Kanaurī. There is thus good reason to assume that also the Si-hia word for coral was sounded *šu*, not *šuai*, and is derived from Tibetan.

Si-hia *pᶜu* ("place of higher altitude") might be regarded as a loan from Tibetan *pᶜu* (see No. 110).

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[1] In the same manner, the Manchu have translated from Chinese *aisin usiha* (Venus), *muke usiha* (Mercury), *tuwa usiha* (Mars).

[2] Bretschneider, *Bot. Sin.*, pt. 3, No. 285.

[3] *Polyglot Dictionary*, Ch. 28, p. 52.

[4] Derived from Sanskrit *vidruma* through the medium of some Indian vernacular.

D. Indian Loan-Words.

197. The peacock is termed in Si-hia *wo* (*vo*)-*lo*, or *wo-ro* 訛勒. The first element, *wo*, as already stated (No. 32), is the Si-hia word *wo* ("bird, fowl"). The second element, *lo* or *ro*, in my opinion is derived from the last syllable of Sanskrit *mayūra* ("peacock"), transcribed in Chinese *mo-yu*(*yü*)-*lo* 摩由(裕)邏, from which Manchu has distilled the form *molo-jin* (*-jin* being a Manchu ending).[1]

Sanskrit *mayūra* has affected also other Indo-Chinese languages. In Tibetan *rma-bya* (*bya*, "fowl"), the element *rma* (*r-* being silent in all dialects), in my opinion, is nothing but a reproduction of the first syllable in the Sanskrit name; also *yuṅ* in Lepcha *muṅ-yuṅ* and Ahom *yuṅ*, Siamese *ma-yūṅ* or *nok-yūṅ*, Pa-yi *nuk-yuṅ*, might be traceable to the same type.[2]

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[1] K'ien-lung's Polyglot Dictionary (Appendix, Ch. 4, p. 6) has the series Manchu *molo-jin*, Tib. *ma-yu-ra*, Mongol *mayara*, Chinese *mo-yu-lo*. Manchu, moreover, has the following designations for "peacock:" *kundu-jin*, from Chinese *k'uṅ tu hu* 孔都護 (*ibid.*, where Tibetan *yo-bya* and Mongol *kündügüri* are added); *to-jin*, from Mongol *tōs* (written *tagus*, *togos*, to express the length of the vowel), doubtless conveyed through an Iranian language, Persian *ṭawus* طاووس (Turkī *ta'us*), that, together with Greek ταῶς, Hebrew *tuki*, *tūki*, has been traced to Tamil-Malayāḷam *tokei*, *togei*, by R. Caldwell (*Comp. Grammar of the Dravidian Languages*, 3d ed., pp. 88—89); *yo-jin*, from Chinese *Yüe niao* 越鳥 ("bird from Yüe"), Tibetan *yo rma-bya*, Mongol *yogon* (*ibid.*, Ch. 4, p. 6); and *ju-jin*, given as equivalent of Chinese *nan k'o* ("guest from the south"), Tibetan *lhoi rma-bya* ("peacock of the south"), Mongol *emürči*. All these are artificially coined book-words without legitimate life.

[2] Tibetan *rma-bya* is hardly intended to convey the meaning *"oiseau aux plaies,"* as stated by J. Halévy (*Journal asiatique*, 1913, nov.-déc, p. 713); the Tibetan word *rma* certainly means "wound," but we cannot etymologize on this basis in Indo-Chinese languages. Nor can it be positively asserted, "le nom indien n'a jamais quitté la péninsule gangétique;" it has indeed wended its way to China, and has resulted in Manchu *molo-jin*. The dependence of Tibetan *rma* on Sanskrit *mayūra* is attested also by the fact that in cognate forms of speech we have a variation *mo*, *mu*, corresponding to modern Indo-Aryan *mōr*, *mūr*. In Kanaurī we have a duplicity of words,—first, *mōrös*, *mōres* (feminine *mōrī*), directly derived from Indian; and, second, *mom-za*, leaning toward Tibetan *mobza* ("peacock's feather"); Newārī *hmu-sa-khā*.

E. Iranian Loan-Words.

198. The Si-hia word for the lion is *ko-čeṅ* 葛正. In all probability this is to be transcribed phonetically *go-čẽ* or *ko-čẽ* (that is, initial *č*, followed by a nasalized *e*; compare Phonology, § 14). The element *go* or *ko* seems to have the function of a prefix, and the element *čẽ* appears as the stem. The word *čẽ* appears to have arisen from **šẽ*;[1] Si-hia *č* sometimes is developed from original *š*, as shown by Si-hia *či*, "flesh" = Tibetan *ša* (No. 48). The form **šẽ*, without doubt, is identical with the same Iranian word as resulted in Chinese *ši* 獅. The latter has been derived from Persian *šēr* شیر.[2] This, however, is not quite satisfactory, since at the time when the first lions were sent to China by the Yüe-či (Indo-Scythians), in A.D. 88, the language, styled properly Persian, was not yet in existence. It seems that toward the end of the first century the word was transmitted to China through the medium of the Yüe-či, and that it originally hailed from some East-Iranian language, where it appears to have been known in the form *šē* or *šī*,[3] as Chinese *ši* (**šʹi*) 師 has no final consonant.

On the other hand, if we adhere to the reading *čeṅ*, a connection may be sought with Sanskrit *siṁha*, *siṅga* (Tibetan *seṅ-ge*, Newārī *sim*, Lepcha *suṅ-gi*).[4] The change of *s* to *č*, however, is difficult

[1] Compare Tibetan *šiṅ-tse*, "lion" (SCHIEFNER, *Çâkyamuni*, p. 96), apparently a transcription of Chinese *ši-tse*.

[2] WATTERS, *Essays on the Chinese Language*, p. 350. The Persian word is traced to Avestan *xšaθr-ya* (= Sanskrit *kshatriya*), "imperiosus, lord, ruler" (C. BARTHOLOMAE, *Altiranisches Wörterbuch*, col. 548; SALEMANN, *Grundr. iran. Phil.*, Vol. I, pt. 1, p. 273; HORN, *ibid.*, pt. 2, p. 34, and *Neupersische Etymologie*, No. 803). It is perhaps under the influence of this signification that the Chinese chose the word *ši* 師 ("master") for the transcription of the Iranian word. This character was formerly employed for the designation of the lion without the classifier (see HIRTH, *J.A.O.S.*, Vol. XXX, 1910, p. 27).

[3] Tokharian A *śiśäk*.

[4] The Lepcha form *suṅ-gi* is surprising. Still more curious is it that this variation meets an analogy in the languages of Madagascar: Madagasy *soṅ-ombi*, *šuṅ-ūmbi*; Merina *suṅg-ūmbi* (written *songombi*). This compound means literally "lion-ox" (a fabulous animal

to explain, and for this reason I prefer the explanation as outlined above. As to the meaning of the first element in the Si-hia term, I have no definite opinion. From a Si-hia point of view the syllable *ko* might be an epithet characterizing the lion, as, for instance, we have in Shina *guma šēr* ("a fiery lion").[1] In view of the affinities of Si-hia with Lo-lo, it may be pointed out that *ko* is a Nyi Lo-lo word meaning "wild, savage" (A-hi Lo-lo *ku*), used especially with reference to non-domesticated animals.[2]

199. Si-hia *lo*, *ro* 羅, copper. This word is not Indo-Chinese, but it is doubtless derived from an Iranian language; for it is identical with Persian *rō*, *rōi* روی, "brass, copper" (*royīn* روین, "brazen, bell-metal"); Yidghal and Khowar, two Hindukush dialects, *lo*; Pahlavī *rōd*, Sogdian *rwδ* (from **rṓδ*),[3] Balučī *rōd*), which belongs to the well-known series: Sanskrit *loha*, Latin *raudus*, *rōdus*, *rūdus* ("piece of ore"), Old Slavic *ruda* ("ore, metal"), Old Icelandic *raude* ("red iron-ore"),—a group of words possibly connected with or derived from Sumerian *urudu* ("copper"). The Si-hia form *ro* shows that it is derived from Persian, not from Pahlavī.[4]

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with the trunk of an ox or horse; also a strong, brave man). G. Ferrand (*Essai de phonétique comparée du malais et des dialectes malgaches*, p. 298), who enumerates these words among the Sanskrit elements in Madagasy, explains the vowel *u* or *o* from the effect of vocalic attraction prompted by the *u* of *ūmbi* (*siṅa-ūmbi*, *siṅ-ūmbi* becoming *suṅ-ūmbi*). In Javanese *siṅă*, Malayan *sīṅa*, the Sanskrit word is preserved in its pure state. In view of Lepcha *suṅ-gi*, it is conceivable that in some language of India such a variant with *u* vowel was already developed, especially as also in Cambodjan the lion is called *soṅ*.

[1] G. W. Leitner, *Languages and Races of Dardistan*, p. 26.

[2] See P. Vial, *Dict. français-lolo*, pp. 256, 298.

[3] R. Gauthiot, *Essai sur le vocalisme du sogdien*, p. 101. See also P. Horn, *Neupersische Etymologie*, No. 635.

[4] Iranian loan-words exist in Tibetan also, and merit a special investigation. The following may be called to mind: Tibetan *p'o-lad* ("steel"), from Persian *pūlād* پولاد (Pahlavī *pūlāfat*, Armenian *połovat*, from **pavīlavat*), a word widely diffused (Ossetian *bolat*, Turkish *pūlād*, Grusinian *p'oladi*, Russian *bulat*, Mongol *bolot*, etc.); Tibetan *sag-lad* ("a textile"), from Persian *saglāt* سغلات (see *J.A.S.B.*, 1910, p. 266); West Tibetan *ču-li*, *čo-li*, Kanaurī *čul* ("apricot"), from the Pamir languages: Minjan and Galcha *čeri* (Dardu and Shina *juru*). Ladākhī *a-lu-ča* ("plum"), from Persian *āluča* الوچه; Tibetan *deb-t'er*, *deb-*

In other Tibeto-Burman languages this Iranian word seems not to exist; at least, it has not yet been traced. There is a uniform Indo-Chinese word for "copper" pervading the chief members of the group, besides others covering limited areas. We have:

(1) Tibetan *zaṅ-s* (from **džaṅ*),[1] Lepcha *soṅ*, Yün-nan Tibetan *son*, Mo-so *soṅo*; Chinese *tᶜuṅ* 銅 (from **duṅ*, *džuṅ*, *dsuṅ*), and Ahom *tåṅ* ("brass"), Shan *tåṅ* ("copper"), Siamese *tᶜoṅ* ("metal, gold;" *tᶜoṅ deṅ*, "copper"), from **doṅ*; Hei Miao *deo*, Ya-čio Miao *de*, Hua Miao *duṅ*.

(2) A-hi Lo-lo *ji*, Nyi Lo-lo *je*, Lo-lo-pᶜo *jö*, Chö-ko *dsi*, Mo-so *šö-tu* ("bronze").

(3) Tibetan *kᶜro* and *ąkᶜar* ("brass, bronze"), Burmese *kᶜë*.[2]

F. West-Asiatic Loan-Words.

200. Si-hia *po-lo* 孛羅, radish (*Raphanus sativus*). Mr. Ivanov identifies this word with Chinese *lo-po* 蘿蔔. The case, however, is not such that the Si-hia would have inverted the Chinese term, but Chinese *lo-po* (**la-buk*) and Si-hia *po-lo* (from **buk-lo*) go back to two West-Asiatic names. The prototype of the Si-hia term is furnished exactly by Aramaic *fuglo* פּוּגְלָא ("radish");[3] and we meet the same word in Grusinian *bolo-ki*, Ossetian *bālkᵊ*, Kabardian *belige*, all of which refer to the radish.[4] Whether this word occurs

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gter, *deb-ster* ("book, document, record"), from Persian *dābtär* دفتر (derived from Greek διφθέρα). Tibetan *sur-na* (Chinese *so-na* 鎖吶), "hautboy, flageolet," from Persian *surnā* سرنا.

[1] The ancient initial *j* is preserved in the languages of Almora, Raṅkas, Dārmiyā, Chaudāṅsī, and Byāṅsī (see *Linguistic Survey*, Vol. III, pt. 1, pp. 538, 539), where *jāṅ* means "gold," answering to Kanaurī *zaṅ* ("gold"). In Bunan, *mul*, a typical word for silver (No. 1), means "gold." Confusion between the words for "gold" and "copper" obtains in several languages; for instance, Yakut *altun* ("copper"), Turkish *altun* ("gold"). Tibetan *zaṅ* is transcribed in Mongol *tsaṅ*, *čaṅ*.

[2] Proposed by B. Houghton, *J.R.A.S.*, 1896, p. 51.

[3] I. Löw, *Aramaeische Pflanzennamen*, p. 309.

[4] W. Miller, *Sprache der Osseten*, p. 10.

also in Iranian is not known to me.[1] It is perfectly conceivable that the Nestorians who were settled in the Si-hia kingdom[2] brought with them the plant and the word. It is notable that the next item introduced by our Si-hia vocabulary is the term *tsan po-lo*; that is, "Chinese radish." Consequently the plain term *po-lo* must have designated another species or variety which apparently was non-Chinese.

Further, we find in Aramaic and Syriac *lafto* לִפְתָּא[3] (Arabic *laft* لفت), derived from Greek ῥάπυς or ῥαφυς (Latin *rāpa* or *rāpum*).[4] This type, in coalition with *fuglo*, seems to have conspired in forming Chinese *la-buk*. T. WATTERS[5] insisted on "a suspicious resemblance of the Chinese word to *rapa* and the kindred terms in Latin and Greek." On the one hand, however, we cannot fall back on Greek directly; and, on the other hand, the word *lafto* cannot fully explain the Chinese term, but at best solely the first element *la*; while Chinese *po* must be traced to *buk*, and the latter to *fuglo*. According

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[1] A Persian word for the radish has been transmitted to Turks, Mongols, and Tibetans: Persian *turma* ترمه and *turub*, *turb*, *turf* ترب; Balkar (PRÖHLE, *Keleti szemle*, Vol. XV, p. 263) and Mongol *turma*; West Tibetan *se-rak turman*, written also *dur-sman* ("carrot"), *se-rak* from Persian *zardak* زردك. The Polyglot Dictionary (Ch. 27, p. 18) writes the Mongol word *tūrma*, and gives it as synonyme of *lōbang* (Chinese *lo-po*; Manchu *mursa*). G. A. STUART (*Chinese Materia Medica*, p. 371) holds the opinion that our English word "turnip" is probably derived from Persian *turub*. This would not be so bad, if our turnip had really come from Persia. There is, however, no trace of evidence to that effect; on the contrary, our turnip is a very ancient European cultivation, being indigenous everywhere in temperate Europe (A. DE CANDOLLE, *Origin of Cultivated Plants*, pp. 36—38; J. HOOPS, *Waldbäume und Kulturpflanzen*, pp. 351, 467). The *-nip* of "turnip" doubtless goes back to Anglo-Saxon *næp* (Middle English *nepe*, *neep*; Old Norwegian *næpa*), from Latin *nāpus* (French *navet*, *navette*); the usual explanation of the first part (from *turn* or French *tour*, in the sense of turned, round) is hardly satisfactory, and, for myself, I do not believe it.

[2] As related by Marco Polo (see YULE's note in his edition, Vol. I, p. 207).

[3] I. Löw, *l. c*, p. 241. This name in particular refers to the species *Brassica rapa*.

[4] Regarding the names of the European languages, see J. HOOPS, *Waldbäume und Kulturpflanzen*, p. 350.

[5] *Essays on the Chinese Language*, p. 332.

to Bretschneider,[1] the word *lo-po* or *lo-pᶜo* first appears in Chinese books of the ninth century, and was originally used in the state of Tsᶜin (Shen-si and eastern Kan-su). The name accordingly makes its début in the Tᶜang period when numerous new species of cultivated plants were introduced into China from the West, and its first appearance in the border-land of Turkistan is likewise suggestive of a foreign origin. The various earlier designations of the plant, *lai-fu* 萊服 (in the *Tᶜang pên tsᶜao*) and *lu fei* 蘆菔 or *lu fu* 菔 in Kuo Pᶜo, are independent of *lo-po*, referring to an apparently indigenous cultivation; Bretschneider assumes that the radish, as it is mentioned in the *Erh ya*, has been cultivated in China from remote antiquity. Since numerous varieties of this genus are under cultivation, not only in China, but also in Europe and India as well (and there also of uncontested antiquity), it is conceivable that a new variety might have been introduced into China from Western Asia through Turkistan under the Tᶜang to receive the foreign name *la-buk*. Bretschneider's observation, that "from China the cultivation of the radish spread over the neighboring countries, where the people generally adopted also the Chinese name of the plant," is somewhat too generalized. A. de Candolle[2] has remarked that "for Cochin-China, China, and Japan, authors give various names which differ very much one from the other." A specific instance may be cited to the effect that an Indo-Chinese nation received the name of the radish from India. The Sanskrit word for the radish is *mūlaka* (from *mūla*, "root"), also *mūlābha*. It is commonly cultivated in Western India and in the Panjab. In the latter territory it is styled *muṅ-ra*, in Bombay *mogri*, in Hindustānī *mugra*.[3] An Indian form of the type *muṅ-ra* appears to have resulted in Burmese *mun-lā*.

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[1] *Bot. Sin.*, pt. 2, p. 39.

[2] *Origin of Cultivated Plants*, p. 31.

[3] Watt, *Dictionary of the Economic Products of India*, Vol. VI, p. 394.

This shows that not all Indo-Chinese words for the radish are traceable to Chinese, and that Burmese *mun-lā* has no relationship with Tibetan *la-pᶜug* (Ladākhī *la-bug*), as assumed by B. Houghton.[1]

201. Si-hia *si-na* 悉那, mustard. This word is neither related to Chinese *kai*, *kiai* 芥, nor to Tibetan *yuñs*; nor can any relationship with Nyi Lo-lo *o-na-se* be asserted. According to the explanation of P. Vial,[2] *o* means "vegetable," *na* "nose," and *se* "congestive." As "nose" is *ni* in Si-hia, we should expect at least *si-ni*, if the Lo-lo and Si-hia words were identical. Si-hia *si-na* reminds one of Greek *sinapi* (σίναπι or σίναπυ), which found its way into Latin *sinapis* (in Plautus), Gothic *sinap*, Anglo-Saxon *sënep*, Italian *senape*, French *sanve*, etc. However startling this derivation may seem at first, it is nevertheless possible. Si-hia *si-na* denotes a species different from Chinese *kiai*: the former relates to *Sinapis* or *Brassica alba*, the latter to *Sinapis juncea*. The home of the white mustard (*Sinapis alba*) is in southern Europe and western Asia.[3]

It first appeared on the horizon of the Chinese in the Tᶜang period, being described under the name *pai kiai* 白芥 ("white mustard") by Su Kung, the reviser of the *Tᶜang pên tsᶜao*, and said by him to come from the Western Jung (*Si Jung* 西戎). Under the term *Hu kiai* 胡芥 it is noted in the *Pên tsᶜao* of Shu 蜀 of the middle of the tenth century. It then was abundant in Shu (Sze-chᶜuan), and for this reason received also the name *Shu kiai* ("mustard of Shu").[4] It is therefore logical to identify Si-hia *si-na* with the

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[1] *J.R.A.S.*, 1896, p. 42. Moreover, the first part of the Burmese word is not traceable to the tribal name Mon, as supposed by the same author.

[2] *Dictionnaire français-lolo*, p. 227.

[3] A. Engler in Hehn, *Kulturpflanzen*, p. 212 (8th ed.); Watt, *Dictionary of the Economic Products of India*, Vol. I, p. 521.

[4] *Pên tsᶜao kang mu*, Ch. 26, p. 12. G. A. Stuart (*Chinese Materia Medica*, p. 408) states that the white mustard was introduced into Sze-chᶜuan from Mongolia; it is safer to say "Central Asia." Also in Tibetan a distinction is made between *ske-tsᶜe* = Sanskrit *rājikā* ("black mustard") and *yuñs-kar* or *yuñs-dkar* = Sanskrit *sarshapa* ("white mustard"),

white mustard of the Chinese, introduced under the T'ang from a region of Central Asia; and it is not surprising, that, with this new cultivated species, also its Hellenistic name (*sinapi*) was diffused over the Asiatic Continent. It remains to determine through which language the transmission took place. Iranian may come into question, but Persian *sipand* سپند (also *sapandān*, *sipandān*, *sipandīn*, *saped-dān*) surely is not related to *sinapi*.

202. Si-hia *liu-na* 流那, cabbage. In attempting to account for this word, it is necessary to survey to some extent the field relating to the cultivation of the genus *Brassica*. The Tibetan language shows us best the various historical probabilities with which we are confronted. The Tibetans, not much given to the growing of vegetables, have three words for designating cabbage, that are borrowed, and curiously enough, each from one of those three great centres of culture with which Tibet was in contact on its western, southern, and eastern frontiers. In West Tibetan we meet the word *kram*,[1] which is traceable to Persian *karanb* کرنب[2] or *kalam* کلم, Arabic *kiranb*, *kurumb*, *kromb*, Hindustānī *káramkállā* کرم کلّا; Siamese *ka-lam*; Greek κράμβη, Latin *crambē*, Aramaic *keruba* כְּרוּבָא.[3] We further meet in West Tibetan *gobi*, Sikkim and Bhūtan *kobi*, an Indian word derived from Hindustānī *kōbī* کوبی, Bengālī *kōpī*, Gujerati *kōbiā*.[4] The last, in consequence of the

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both terms being listed in the Mahāvyutpatti. The latter term is artificial, and plainly shows that the white mustard was foreign to the Tibetans likewise; for *yuṅs*, *yuṅ*, or *ñuṅ* relates to the turnip. Tibetan *ske-ts'e* is a transcription of Chinese *kai ts'ai* 芥菜; the two terms are equalized in the Polyglot Dictionary (Ch. 27, p. 19).

[1] H. Ramsay (*Western Tibet*, p. 15) remarks that the Tibetan word is used for cabbage, but really means "a kind of spinach." According to Jäschke it only means "cabbage."

[2] The word appears as early as the latter part of the tenth century in the pharmacological work of Abū Mansūr (Horn, *Grundr. iran. Phil.*, Vol. I, pt. 2, p. 6).

[3] I. Löw, *Aramaeische Pflanzennamen*, p. 213.

[4] The word is found in Singalese (*kōvi*), in the Dravida languages (*kōb*, *kobī*, etc.), in Malayan and Javanese (*kōbis*, *kūbis*). See S. R. Dalgado, *Influencia do vocabulário portugués em línguas asiáticas*, p. 65 (Coimbra, 1913).

introduction of cabbage into India by Europeans,[1] is a European word connected with our series: Latin *caputium*, Italian *capuccio*, Portuguese *couve*, French *cabus*, *caboche*, English *cabbage*.

In central and eastern Tibet the name *pe-tse* or *pi-tsi* is used. This, as already observed by Jäschke, is Chinese *pai ts'ai* 白菜 (*Brassica chinensis*), a colloquial term for the species *sun* 菘. The Tibetan word, likewise in oral use only, was apparently conveyed through the medium of a Sze-ch'uan dialect, as shown by the vocalization *pe*; and the tenuis instead of the aspirate proves that we have not a rigorous transcription of the written language before us. The term *pai ts'ai* itself is not old, but makes its first appearance in the *P'i ya* 埤雅 of Lu Tien 陸佃 (1042—1102).[2] The conditions of the Tibetan language, accordingly, bear out the fact that Central Asia, on the one hand, participated in the European variety or varieties of cabbage (and A. DE CANDOLLE[3] has well demonstrated the European origin of this species, *Brassica oleracea*), and, on the other hand, received (probably as imported product only) another species anciently cultivated in China.[4] The Si-hia word *liu-na* bears no relation either to Chinese or to any other Indo-Chinese language (compare, for instance, Lo-lo *o-za*, *o-lai-ma*; Lepcha *bi-bum*), and it is therefore justifiable, as in the case of Tibetan *kram*, to seek its origin in a western language. The Turkish word *lahana* لهانه suggests itself.[5] This is derived from Greek λάχανον, which passed into Arabic as *lahana* لهانة. The Turkish, Arabic, and Si-hia ending *-na* is due to the Greek plural λάχανα; the word (from λαχαίνω, "to dig") was chiefly used in the plural form in the sense of

[1] WATT, *Dictionary of the Economic Products of India*, Vol. I, p. 533.

[2] *Pên ts'ao kang mu*, Ch. 26, p. 10 b.

[3] *Origin of Cultivated Plants*, pp. 83—86.

[4] BRETSCHNEIDER, *Bot. Sin.*, pt. 3, No. 245. G. A. STUART, *Chinese Materia Medica*, p. 73.

[5] RADLOFF, *Wörterbuch der Türk-Dialecte*, Vol. IV, col. 731.

"garden-herbs." Again, it seems to me that also in this case the Nestorians may be responsible for the transplanting of both the name and the object.

NOTE ON SI-HIA PLANTS.

The preceding observations show that the Si-hia names of cultivated plants are of particular interest, and augur a peculiar position of Si-hia culture in Central Asia. It is therefore appropriate to elucidate this subject to some extent from an historical point of view; and an attempt in this direction is supported by a list of plants growing in the Si-hia country, and recorded in the Chinese Annals.[1]

The only cultivated plant the name of which is common to Si-hia and Tibetan, as far as we can judge at present from our fragmentary material, is barley: Si-hia *na*, Tibetan *na-s* (No. 116). The translation of this word given by Mr. Ivanov is "cereal," but the standard cereal of Tibetan tribes has at all times been barley. Barley is expressly mentioned in the Annals, and occupies the first place among the plants cultivated in the Si-hia country. The food-plants raised by the ancient Tibetans are enumerated in the *Kiu T'ang shu* (Ch. 196 A, p. 1 b) as barley, a certain species of beans,[2] wheat, and buckwheat.[3] The *Sin T'ang shu* gives the same in the

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[1] *Liao shi*, Ch. 115, p. 3.

[2] *Lao tou* 𦰡豆, according to BRETSCHNEIDER (*Bot. Sin.*, pt. 2, No. 96), "a climbing leguminous plant, wild-growing, used as a vegetable; the small black seeds, which resemble pepper, are edible" (see also G. A. STUART, *Chinese Materia Medica*, p. 378), identified with *Rhynchosia volubilis*. The proper mode of writing is 𣏌 *lao* ("to weed"), the plant being a weed growing in wheat-fields. There can be no doubt that this is not the plant intended in the above passage of the T'ang Annals, where a cultivated plant is in question. In the Polyglot Dictionary (Ch. 29, p. 11) we find the term *lao tou*, written 𣐈豆, with the following equivalents: Tibetan *sran-č'uń*, Manchu *laifa*, Mongol *khosingur*. Tibetan *sran-č'uń* means "small bean or pea," and appears in the Mahāvyutpatti as rendering of Sanskrit *masūra* ("lentil;" see A. DE CANDOLLE, *Origin of Cultivated Plants*, p. 323); but it is not known to me that lentils are grown in Tibet.

[3] Tibetan *bra-bo*, Purig *bro*, Jyarun *dru*.

order wheat, barley, buckwheat, and *lao* beans. The Chinese term for "barley" employed in this passage is *ts'iṅ k'o* 青稞, which in meaning answers to Tibetan *na-s*.[1] The word *na*, *na-s*, does not seem to cover much ground in Tibeto-Burman.

Barley is among the most ancient cultivated plants, and many varieties have been brought into existence through the process of cultivation. The word *nas* refers at the present time to the beardless variety of barley (*Hordeum gymnodistichum*), which has only two rows of spikelets, and further presents the curious feature of having the flower-scales non-adherent to the grains. These scales drop in threshing, leaving the grains naked like those of the wheat. Three sub-varieties are said to be largely cultivated in Tibet,—a dull green, a white, and a dark or chocolate brown. It was recently (1886) introduced into India by seed obtained in Tibet.[2] It is known in the Indian vernaculars as *paigambari*, *rasuli*. In China it is called *kuṅ mai* 穬麥,[3] and *ts'iṅ k'o* 青稞.

The term *nas*, however, has a wider application in literature; for in the Mahāvyutpatti, translated into Tibetan in the ninth century, it is identified with Sanskrit *yava*. The latter term, as conclusively shown in particular by J. Hoops,[4] referred to the barley in the earliest period of Indian history. Moreover, as *Hordeum hexastichon* (the six-rowed barley) is almost the only cultivated form, the barley par excellence, of India,[5] we are justified in identifying with it both the terms *yava* and *nas*.

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[1] Polyglot Dictionary, Ch. 28, p. 45. Bretschneider (*Chinese Recorder*, Vol. IV, 1871, p. 225) is inclined to think that *ts'iṅ k'o* in the above text refers to oats. This, however, is not correct; *ts'iṅ k'o* denotes the so-called naked barley (*Hordeum gymnodistichum*).

[2] Watt, *Dictionary of the Economic Products of India*, Vol. IV, p. 274.

[3] Bretschneider, *Bot. Sin.*, pt. 2, No. 32; pt. 3, No. 220.

[4] *Waldbäume und Kulturpflanzen*, pp. 344, 358—359.

[5] Watt, *l. c.*, p. 275.

Another variety of barley is styled in Tibetan *so-ba*, *so-wa*; Ladākhī *sóa* or *swa*. This word is widely diffused in Tibeto-Burman: Jyaruń *sui*, Nyi Lo-lo *ze-ma* (*ša-za*, "oats"), A-hi Lo-lo *e-sa*, Lo-lo of T^{c}ung River (Baber) *zo*, Mi-ñag *mu-dza* (the element *mu* is apparently identical with Burmese *mu-yau*, "barley," and Chinese *mou* 牟 or 麰, "barley"), Nepal *to-sa*; Bunan *za-d*. The primeval form appears to be **za*, *zo*; we may derive from it also the Tibetan word *ka-rtsam*, *ka-sam*, *rtsam-pa*, *tsam-pa*, *tsam-ba* ("roasted flour from barley or oats"). The barley here in question is the common, four-rowed variety (*Hordeum vulgare*). An interesting identification of Tibetan *so-ba* is made in K^{c}ien-lung's Polyglot Dictionary (Ch. 38, p. 45), where it corresponds to Manchu *arfa* and Mongol *arbai*. Both these words are identical with, and presumably derived from, Turkish *arpa* (in some dialects *arba*, Salar *arfa*), whence the Hungarians received their *árpa*.[1]

Another Tibetan word that belongs to this group is *yu-gu*, *yu-k^{c}u*, or *yug-po* (Ladākhī *ug-pa*), which relates principally to oats (*Avena sativa*), but is locally employed also for barley (compare Burmese *mu-yau*, "barley"). Tibetan *yo-s* ("roasted corn") and Bunan *yu-ši* ("flour") are derived from the same base, that we have also in Chinese *yu* 莜 ("oats"). The wild oat (*Avena fatua*), from which the cultivated species is now generally believed to have been obtained, occurs spontaneously in the Himalaya up to 9500 and 11500 feet,[2] everywhere in Eastern Tibet,[3] and in several parts

[1] Z. Gombocz, *Die bulgarisch-türkischen Lehnwörter*, p. 30. Other Manchu words for "barley" are *muji* (corresponding to *ta mai* 大麥) and *murfa* (corresponding to Tibetan *nas*). The Chinese equivalent for Tibetan *so-ba* in the Polyglot Dictionary is *liń-tań mai* 鈴鐺麥 ("bell wheat"), a Peking colloquial term explained by Bretschneider (*Chinese Recorder*, Vol. IV, 1871, p. 225) as "oats;" the meaning "barley" seems more appropriate. In Mongol dialects we meet the following variations: *arpa*, *irpei*, *arpai*, and *χarba* (Potanin, *Tibeto-Tangutan Border-Land of China*, in Russian, Vol. II, p. 398).

[2] Watt, *l. c.*, Vol. I, p. 355.

[3] According to the observations of the writer who secured specimens in the field.

of China.[1] Though no investigations as to the relation of the wild to the cultivated species in Tibet have as yet been made, it is very likely that the latter has sprung from the former. As to the oat of Europe, the same relation has been assumed, but the origin of European oat-cultivation is a problem as yet unsolved. It has been carried somewhat vaguely into Central Asia or Turkistan by some investigators;[2] but I have no doubt that Tibet, where we find the wild and the cultivated species side by side, must be regarded as the home of oat culture. The *Liao* Annals mention for the Si-hia country no other cereal than barley (*ta mai*), which probably includes also oats. The Si-hia people, accordingly, like the Tibetans, must chiefly have been barley and oat eaters.

The designation for "beans", *tu* (No. 96), separates the Si-hia from the Tibetans,[3] and draws them near the Chinese; for *tu* is apparently akin to Chinese *tou* 荳 ("beans, pulse").[4] A special kind of black beans (*tu hei*) is recorded in our Si-hia glossary. In the language of the Chuń-kia we meet *lok-tu*, in Miao-tse *ka-tu*, *laň-tao*, and *tu*.[5] The Lepcha terms for different kinds of beans (*tuk-byit*, *tuň-ki*, *tuň-kuň*, etc.) do not belong to this series; Lepcha *tuk* is a distinct word, that is independent of Chinese *tou*. Lo-lo-p'o *no*, A-hi Lo-lo *a-nu*, Nyi Lo-lo *a-nu-ma*, present likewise a separate group. Mo-so *beber* is a mysterious word. Considering the numerous varieties of beans, the diversity of words is not surprising. The

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[1] Forbes and Hemsley, *Journal Linnean Soc.*, Botany, Vol. XXXVI, p. 401. In Turkistan we have *Avena sterilis* and *A. desertorum* (S. Koržinski, *Sketches on the Vegetation of Turkistan*, in Russian, pp. 20, 66, 76).

[2] See Hoops, *l. c.*, p. 405. The information of this author as to China and Central Asia is certainly insufficient.

[3] Tibetan *sran-ma*, *srad-ma*; Yün-nan Tibetan *se-mer*; East Tibetan (so-called Si-fan) dialects *se-mer*, *se-ma*.

[4] The case of Manchu *turi* ("bean"), derived from Chinese *tou*, might favor the assumption that Si-hia *tu* is likewise a Chinese loan-word.

[5] d'Ollone, *Langues des peuples non chinois de la Chine*, p. 51.

cultivation and consumption of beans (*pi tou* 蓽豆) in the Si-hia country is testified to by the Annals.

As imports from China we meet fruits like apricots, *kaki*, plums, *lungan*, and oranges. Pears (No. 90) were possibly cultivated.

The relationship of the Si-hia designation for rice ($k^{c}o$) to the T^{c}ai languages (No. 84) is curious. It is independent of the Tibetan (*ąbras*) and Chinese terms, and probably points to the fact that the inhabitants of the Si-hia kingdom received the T^{c}ai word from Miao-tse and Mo-so tribes, which likewise possess it, and also that they may have traded this staple from their southern and south-eastern neighbors. It is likewise interesting that the nomenclature for "field, forest, tree, wood, fruit" (Nos. 85–87) exhibits decidedly T^{c}ai affinities; and this may hint at a certain degree of influence exerted by the T^{c}ai on Si-hia agriculture.

Among the plants enumerated in the *Liao shi*, we find the fruits of the $p^{c}uń$ of the salty soil 鹹地蓬實, which may be the equivalent of *kien* $p^{c}uń$, identified with *Salsola asparagoides* (family *Chenopodiaceae*).[1] Forbes and Hemsley[2] enumerate three Chinese species, — *Salsola collina*, *S. kali*, and *S. soda*, — and state that several others are in the Kew Herbarium. These desert shrubs grow everywhere in Persia, Tibet, Mongolia, and Turkistan.[3]

The *Liao shi*, further, mentions sprouts of $ts^{c}uń\ yuń$ 蓯蓉苗. T^{c}ao Hung-king indicated that the best ones came from Lung-si (Kan-su).[4] The plant is common in southern Siberia, Dsungaria, and Mongolia, and belongs to the family *Orobanchaceae*. The species

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[1] Bretschneider, *Bot. Sin.*, pt. 2, p. 254.

[2] *Journal Linnean Soc.*, Botany, Vol. XXVI, p. 330.

[3] Watt, *l. c.*, Vol. VI, pt. 2, p. 392. The Mongol names will be found in Potanin, *Sketches of North-Western Mongolia*, Vol. IV, p. 152; and *Tanguto-Tibetan Border-Land of China*, Vol. II, p. 404 (both in Russian); the Turkish names in Grum-Gržimailo, *Description of a Journey in Western China* (in Russian), Vol. III, p. 498.

[4] Bretschneider, *Bot. Sin.*, pt. 3, p. 38.

in question is probably *Cistanche salsa*, which occurs in Kan-su and Siberia.[1]

The Si-hia people turned out mats from the bark-fibre of the small *wu-i* tree 小蕪黃席. Two kinds of *wu-i* are distinguished, a larger and a smaller one. The former has been identified with *Ulmus macrocarpa* (family *Urticaceae*).[2] The latter presumably is *Ulmus parvifolia* or some other kind of elm.[3] The bark of *Ulmus* contains a strong fibre suitable for the manufacture of cordage, sandals, and mats.

Finally we meet the following wild-growing plants in the Annals of the Liao:

Leaves from *ti huaṅ* 地黃葉, *Rehmannia glutinosa*.[4] The dried leaves of this plant furnish digitalis.

Kü hui tᶜiao 拒灰蓧, presumably identical with *hui tᶜiao* 灰滌, *Limnanthemum peltatum* (family *Gentianaceae*);[5] applied to the Kan-su region, it may refer as well to one of the ten species of *Gentiana* occurring there.[6]

Pai hao 白蒿, *Artemisia stelleriana vesiculosa*.[7] Root and

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[1] Forbes and Hemsley, *J. Linnean Soc.*, Botany, Vol. 26, p. 222. The above designation of the species is the same as *Phelipaea salsa* given by G. A. Stuart (*Chinese Materia Medica*, p. 61). Compare the interesting descriptions of this and the preceding plants by S. Koržinski, *Sketches on the Vegetation of Turkistan* (in Russian), pp. 5—6.

[2] Bretschneider, *Bot. Sin.*, pt. 3, No. 330. G. A. Stuart, *Chinese Materia Medica*, p. 448. The discrimination of the two kinds is attributed to Li Shi-chên by Bretschneider and Stuart; it is first made, however, in the *Pên tsᶜao yen i* of the year 1116 by Kᶜou Tsung-shi. There the smaller species is said to be identical with elm-seeds 榆莢. In fact, as follows from our above text, it must have designated a particular species.

[3] Eight species of *Ulmus* are known from China (Forbes and Hemsley, *l. c.*, p. 448); the genus comprises about sixteen species. The elm of Mongolia is *Ulmus campestris*.

[4] Bretschneider, *l. c.*, No. 100. G. A. Stuart, *l. c.*, p. 150. Forbes and Hemsley, *l. c.*, p. 193.

[5] G. A. Stuart, p. 241. Forbes and Hemsley (*l. c.*, p. 142) enumerate the two species *L. cristatum* and *L. nymphoides*, both of which occur likewise in India (Watt, *l. c.*, Vol. IV, p. 641), where stems, fruit, and leaves of *L. cristatum* are eaten in certain localities, *L. nymphoides* being largely employed as fodder in Kashmir.

[6] Grum-Gržimailo, *l. c.*, Vol. III, pp. 492—494.

[7] G. A. Stuart, *l. c.*, p. 52.

leaves are used as food; a decoction is employed as a wash in ulcerous skin affections.

Fruits of *kien ti suń* 鹹地松實, pine-nuts of a particular species growing in salty soil. The tree in question is perhaps identical with the *lo* or *ro* of the Si-hia glossary (No. 143). At least eleven species of *Pinus* are known from China.[1]

The following plants recorded for the Si-hia country in the *Liao shi*, as far as I know, have not yet been identified: *tsʿiń lo mi-tse* 青裸戾子, *ku-tse man* 古子蔓, *ki tsʿao-tse* 雞草子, and *töń siań tsʿao* 登廂草. The plants previously mentioned, may have been employed partially by the Si-hia as food-stuffs, and partially by the Chinese as medicines. The Si-hia, if we may depend on the Chinese annalist, in case of sickness, did not resort to physicians and drugs, but summoned their shamans for the exorcism of the devils causing the complaint.

In our Si-hia glossary, the name of a flower is given as *tʿo-lü* 托緑, and through the Chinese translation *mu-tan* is identified by Mr. Ivanov with *Paeonia chinensis*. It is more probable, however, that this is not the Chinese, but an indigenous Si-hia species. Presumably it is *Paeonia anomala*, found in Kan-su and Mongolia. According to Potanin,[2] it is styled by the Tangut *tombu-tuglan*; and the Si-hia name may bear some relation to this word *tuglan*.

Likewise the Si-hia term *fu-sai* (No. 136), alleged to mean "lotus," in all likelihood refers to an autochthonous plant of the Kan-su and Amdo regions, where we know of four species of *Iris* (*bungei*, *dichotoma*, *ensata*, and *gracilis*).[3]

It is regrettable that the Si-hia vocabulary does not impart the words for "onion" and "garlic." It is related in the Annals of the

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[1] Forbes and Hemsley, *l. c.*, pp. 549—553.

[2] *Tangúto-Tibetan Border-Land of China*, Vol. II, p. 401.

[3] Grum-Gržimailo, *Description of a Journey in Western China*, Vol. III, p. 500.

Liao that the Si-hia country produced two wild species, called *ša ts^{c}uń* 沙葱 ("sand-onion") and *ye kiu* 野韭 ("wild-growing leek"). The former species is not mentioned in the *Pên ts^{c}ao kang mu*; but it is explained in the continuation of this work, the *Pên ts^{c}ao kang mu shi i*,[1] according to which *ša ts^{c}uń* is a Kan-su name, and relates to a wild-growing onion occurring everywhere in Mongolia, the leaves being the same as those of the cultivated variety. It is styled "sand-onion," because it thrives in sandy places; and the Mohammedans of Kan-su especially relish it. The term is listed in the Polyglot Dictionary (Ch. 27, p. 27) with the literal Tibetan translation *bye-tsoń*, Manchu *engule*, Mongol *günggel*. Eight wild species of *Allium* have become known from Kan-su.[2]

The alliaceous plants belong to the oldest cultivated within the dominion of the Indo-Chinese family. We have the following interesting coincidences of names:

1. Chinese *ts^{c}uń* (even upper tone) 葱 (general term for alliaceous plants, as onions, garlic, leek), Korean *č^{c}oń*, Japanese *sō*. Tibetan *b-tsoń* (high tone), Tromowa, Sikkim, and Lepcha *o-tsoń*, eastern Tibetan (so-called Si-fan) *a-č^{c}uń*, Chö-ko *a-suń*, Nyi Lo-lo *a-ts^{c}e*. Primary form presumably **dzuń*, *juń*.

2. Chinese *suan* (sinking upper tone) 蒜, "garlic" (*Allium sativum*), Cantonese *sün*, Hakka *son*, Fukien *sauń*, Korean and Japanese *san*, in north-western Chinese dialects *suai*.[3] Lepcha *suń-gu*, A-hi Lo-lo *šo*, Lo-lo-p^{c}o *šu*, Nyi Lo-lo *še-ma*; Burmese *krak-swan*, So. Chin *kwet-šon*.

3. Chinese *kiu* (rising upper tone) 韭 or 菲 ("leeks, scallions," *Allium odorum*), Cantonese *kau*. Tibetan *s-goy(-pa)* (high tone), Yün-nan Tibetan *gau-pa*, Suń-pan Tibetan *čon-grog*;[4] Burmese

[1] Ch. 8, p. 16 b (see *T'oung Pao*, 1913, p. 326).

[2] Enumerated by Grum-Gržimailo, *l. c.*, Vol. III, pp. 500—501.

[3] Potanin, *Sketches of North-Western Mongolia* (in Russian), Vol. IV, p. 146.

[4] Potanin, *Tanguto-Tibetan Border-Land of China* (in Russian), Vol. II, p. 395. *Li-šii gur k'ań* (fol. 15) has also *keu* in the sense of wild garlic (*ri sgog*).

krak-swan, Southern Chin *kwet-šon*. The primary form seems to be **gau*, *gou*. The suffix *-g*, *-k*, is peculiar to Tibeto-Burman. Presumably also Tibetan *ske-tse* ("wild onion") belongs to the same base; perhaps even Tibetan *kwon-doṅ* or *kon-toṅ*[1] and *kiu-ljaṅ* ("wild onion," = Mongol-Manchu *suduli*).

4. The element *doṅ*, *toṅ*, in the Tibetan compounds *kwon-doṅ*, *kon-toṅ*, and the element *čon* in Suṅ-pan Tibetan *čon-grog*, may be anciently related to Chinese **diem*, *tiem* 蕆, now *ts^{c}ien* and *t^{c}ien* ("wild garlic or onion").

Chinese *ts^{c}uṅ* and *suan* (*sun*, *suṅ*), with their corresponding equations in the other languages, apparently are allied words; and, what is still more interesting, appear to be historically connected in some manner with Turkish (Cumanian, Chuvaš, and Osmanli) *soγan* ("onion"),[2] Uigur *soγun*, Baskir *ϑugan*, Djagatai *soiγan*, Mongol *soṅγina* (in dialects also *soṅγinok*), Shirongol *saṅgnyk*, Teleutic *soγono*, Altaic *sōno*, Manchu *suṅgina*, Mongol and Manchu *suduli* ("wild garlic"). From a purely philological standpoint it is difficult to decide which side is the borrower, and which is the recipient. A further interrelation seems to prevail as to the Indo-Chinese base **gau*, *gou*, *gok*, *ko*, and Shirongol *gogo*, Ordos Mongol *kogut*, *kogyt* (*y* = Russian ы); also as to Tibetan *kwon*, *kon*, previously mentioned, and Mongol *günggel*. The Turkish-Mongol-Tungusian series bears the genuine imprint of Altaic words, both as to their phonetic structure and particularly as to their endings. On the other hand, the Chinese words, as shown by documentary evidence, point to a great antiquity, and this conclusion is corroborated by their wide diffusion in the cognate languages. The philologist,

[1] Polyglot Dictionary, Ch. 29, p. 24. The former is equalized with Chinese *ye suan miao* 野蒜苗 ("sprouts of wild garlic"), Manchu *sejulen*, Mongol *khaliyar*; the latter, with *siao ye kiu* 小野韭 ("small wild leek"). *Li-šii* writes *kun-doṅ*.

[2] Schrader (in Hehn, *Kulturpflanzen*, 8th ed., p. 208) compares with this Lithuanian *swogūnas*, a word that stands alone in Indo-European languages.

however, cannot decide two important botanical questions without which the solution of the problem is hopeless: and these are whether the Indo-Chinese and Turkish-Mongol names in their origin refer to a wild or to a cultivated species, and where the home of the wild and cultivated species is to be sought. BRETSCHNEIDER [1] informs us that the *ts'uń* of North China is *Allium fistulosum*, a native of Siberia, Dauria, and northern Mongolia, and that the ancient dictionary *Erh ya* does not mention the cultivated *ts'uń*, but notices only the mountain or wild onion. Since the researches of E. REGEL, [2] who found *Allium sativum* growing wild in the Kirgiz steppe, botanists are agreed that this region should be regarded as the original habitat of garlic. In Egypt, the cultivation of garlic and onion is very ancient, and traceable at least to about 1200 B.C. [3] Yet their spontaneous origin in Egypt cannot be proved. [4] The ancient Semitic name (Assyrian *šūmu*, Hebrew *šūm*, Punic σουμ, Arabic *ṭūm*) is probably not correlated with the Turkish term. Relying on the botanical evidence, the assumption would be possible that a certain species of garlic or onion was first cultivated by Turkish tribes and handed on by them to the Chinese and their neighbors in Central Asia; this transmission, as borne out by the linguistic evidence, must have taken place in a very remote, prehistoric period. [5] It is of great interest also that Mongol and Turkish

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[1] *Bot. Sin.*, pt. 2, p. 169.

[2] *Alliorum adhuc cognitorum monographia*, p. 44 (St. Petersburg, 1875).

[3] V. LORET, *L'ail chez les anciens Egyptiens* (*Sphinx*, Vol. VIII, 1904, pp. 135—147).

[4] F. WOENIG, *Pflanzen im alten Aegypten*, pp. 198, 199.

[5] This prehistoric transmission must not be confounded with the late historical introduction in the Han period of another species of *Allium* (*Allium scorodoprasum*), *ta suan* 大蒜, *hu* 胡 *suan*, or *hu* 葫. HIRTH (*T'oung Pao*, Vol. VI, 1895, p. 439) has represented the matter as though garlic had been introduced into China for the first time under the Han from Fergana by General Chang K'ien. The attribution of the introduction to Chang K'ien, however, is not an historical fact; this event is not reported in his authentic biography inserted in the Han Annals, but it is on record only in that spurious and untrustworthy Taoist production, the *Po wu chi* (see BRETSCHNEIDER, *Bot. Sin.*, pt. 2,

possess a common word for a wild species of leek or garlic thriving in the steppes (*Allium senescens*): Mongol *mañgin*, *mañgir*, Kalmuk *mañgirsun*, Buryat *mañehuñ*, *mañehañ*;[1] Teleutic *mañyr*.[2] The popularity of this plant is borne out by the fact that the Buryat designate June the "month of leek" (*mañehañ hara*). In view of the situation on which the problem rests, and in view of two wild species of garlic and leek utilized by the Si-hia, we readily see that it would be important to know the Si-hia terms for the latter, which would possibly shed light on the subject.

PHONOLOGY OF SI-HIA.

A complete and positively assured phonology of Si-hia can naturally not be based on the limited material available for the present. Some characteristic phonetic traits, however, may be pointed out.

1. The most striking phenomenon in the vocalic system of Si-hia is that in a number of cases the vowel *i* corresponds to Tibetan *a*:

li, moon = Tib. *z-la* (No. 12).
rni, ear (corresponding to Chinese *ni*, *ñi*) = Tib. *rna* (No. 10).
ni, nose = Tib. *s-na* (No. 11).
či, flesh = Tib. *ša* (No. 48).

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p. 171). F. P. Smith (*Contributions toward the Materia Medica*, etc., p. 8; and repeated in the new edition of G. A. Stuart, p. 28) says that according to the *Pên ts'ao* Chang K'ien introduced the plant; but Li Shi-chên, the editor of that work (Ch. 26, p. 6 b) gives as his own opinion only that "people of the Han dynasty obtained the *hu suan* from the Western Regions," while he cites the dictionary *T'ang yün* of Sun Mien (published in 750) to the effect that Chang K'ien was the first to bring it back from his expedition to Central Asia. It therefore was in the T'ang period that this opinion prevailed, but, as far as I know, there is no evidence thereof accruing from a contemporaneous source of the Han. The connection of the plant with the name of the great general is purely traditional, as he was famed for having introduced a number of other useful plants; and all we may assert safely is that it is possible that a new alliaceous species was received by the Chinese during the Han era from inner Asia.

[1] Castrén, *Burjätische Sprachlehre*, p. 172.

[2] Radloff, *Wörterbuch*, Vol. IV, col. 2007.

č^{c}i-ma, orange = Tib. *ts^{c}a-lum-pa* (No. 44).
ts^{c}i-ñu, salt = Tib. *ts^{c}a* (No. 13).
si, *zi*, grass (Mo-so *zi*) = Tib. *tsa* (No. 42).
niñ, morning = Tib. *naṅ* (No. 120).
yi, hundred = Tib. *b-r-g-ya*, Burmese *ta-ya* (p. 14).
yiñ, light (in weight) = Tib. *yaṅ* (No. 120).

2. If, however, the Tibetan word containing the vowel *a* is closed by final *s* or *g*, which are eliminated in Si-hia,[1] the vowel *a* is preserved in the latter language:

na, barley = Tib. *nas* (pronounced *na*).
la, hand = Tib. *lag*.

Interchange of *a* and *i* occurs within the pale of the Tibetan written language: *r-maṅ-lam* ("dream;" *lam*, "road") and *r-mi-lam* (*maṅ*[2] = Chinese *moṅ* 夢, "dream"). In this case we may safely assert that the form *r-maṅ* is older than *r-mi*. Ladākhī *lča* corresponds to common Tibetan *lči* ("dung"). The word *rmaṅ* ("ground, foundation") has a provincial form *rmiṅ*; both *t'ag* and *t'ig* mean "cord." The same alternation is met between Tibetan and other Indo-Chinese languages: Tib. *šig* ("louse") — Lepcha *šak*; Tib. *byaṅ* ("pure") — Newārī *b'iṅ* ("good, fine"), but Chepaṅ *b'aṅ-to*; Tib. *za-ba* ("to eat") — Chepaṅ *j'i-sa*; Tib. *ña* ("fish") — Mo-so *ñi*. In the word for "eye" (No. 53) we noted the forms *mik* and *mak*.

3. In other cases, Tibetan *a* in an open syllable changes in Si-hia into *o* or *u*:

Tib. *na*, sick, disease = Si-hia *no* (corresponding to Ahi Lo-lo *no*).
Tib. *ba*, cow = Si-hia *wu*.

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[1] In this, as well as in the following paragraphs, where the elimination of finals is mentioned, it should be understood that elimination merely refers to an existing fact, but is not intended to convey any notion of genetic development. It is more than doubtful whether Si-hia (like other Indo-Chinese languages) has ever possessed such finals (see Conclusions).

[2] This base occurs also in the Karen languages: *ner-maṅ*, *mye-maṅ*, *biṅ-maṅ*, *mi-maṅ* (*Gazetteer*, etc., p. 654).

4. Tibetan *a* followed by a final labial or guttural consonant is transformed into *o* in Si-hia, the labial or guttural being eliminated:

Tib. *r-gyab*, back = Si-hia *ṅo*.
Tib. *pʿag*, hog = Si-hia *vo* (Ahi Lo-lo *vye*).

5. Si-hia *u* corresponds to Tibetan *u*:

lu, body = Tib. *lus*.
wu, head = Tib. *wu* (*dbu*).
wu, centre = Tib. *dbus* (*wu*).

6. Si-hia *u* corresponds to Tibetan *o*:

lu, season = Tib. *lo*, year.

7. Si-hia *u* corresponds to Tibetan *a*:

wu, cow = Tib. *ba*.
wu, father = Tib. *pʿa*.
k-ṅu, five = Tib. *l-ṅa*.
k-ṅum, heaven = Tib. *g-nam* (*d-guṅ*).
žu, fish = Tib. *ña*.

8. Si-hia *u* corresponds to Chinese *ou*:

tu, bean = Chin. *tou*.

9. Si-hia *o* corresponds to Tibetan *u*:

lo, sheep = Tib. *lug*.
mo, worm = Tib. *ṗbu*.

10. Si-hia *o* corresponds to Tibetan *ö* (*e*):

mo, fire = Tib. *mö* (*me*).

11. Si-hia *ö* corresponds to Tibetan *ö* developed from *o*:

tsö, *Pantholops hodgsoni* = Tib. *tsö* (*gtsod*, *gtso*).

12. Si-hia *i*, usually in a closed syllable, corresponds to Tibetan *i*:

niṅ, heart = Tib. *s-ñiṅ*.
miṅ, man = Tib. *mi*.
liṅ or *riṅ*, great = Tib. *riṅ*, long.
čʿi (*kʿi*), gall = Tib. *m-kʿri-s* (*-pa*).

13. Si-hia *i* in an open syllable corresponds to Tibetan *i* and Chinese *ę*:

si, to die = Tib. *ši*, Chin. *sę*, Mo-so *še*.

14. Nasalized vowels seem to occur in the following examples:

mĩ, man = Tib. *mi*.
mĩ, not = Tib. *mi*.
rĩ, bear = A-hi Lo-lo *rö-mo*, Lo-lo-p^{c}o *vö-mo*, Tib. *d-re-d*.
č^{c}u-lĩ, plum = Chin. *li* (No. 184).
ko (*go*)-*čẽ*, lion (No. 198).
nõ, two (see p. 13), beside *nöṅ*.
nö̃, spring (No. 73).
č^{c}ĩ-ni, summer (No. 74).

15. Diphthongs occur with comparative frequency. The one most characteristic of the language is *ou*. The words in which it is found have only a simple vowel in the allied languages: *šou* (No. 6), *kou* or *gou* (No. 18), *mou* (No. 21), *kou* (No. 70), *č'ou-na* ("coin"), and *lou* ("to stew"). The same diphthong is characteristic also of Jyaruṅ, a Tibetan dialect with which Si-hia shares other features: *smou* ("medicine") = Tibetan *sman*; *šou* ("paper") = Tib. *šog*.

16. Likewise the diphthong *ei* thrives in Si-hia where the allied languages have a plain vowel: *mei* ("eye"), *zei* ("panther"), *jei* ("water"), *šaṅ-wei* ("under-garment"), *wei* ("snow"), *wei* ("year"), *dzei* ("south"), *wei* ("monkey"), *pei* ("present, current"). In *wei* ("to do") the diphthong agrees with Chinese *wei*.

17. The diphthong *ai* is met with in *tsai-šu* ("rat") and *nai* (two of the cyclical signs, see No. 176). It will be noticed that, with the single exception of *t'ien-čo*, all diphthongs close the syllable, and are never followed by a consonant.

18. The diphthong *ao* is found in the Chinese loan-words *yao* ("furnace") and *mao'r* ("cat"); and in the indigenous words *yao* ("day"), and *yao* ("bird") in the compound *wo-yao* ("domestic fowl").

19. The diphthong *ui* appears after palatals in *č'ui* ("tooth"), where no diphthong is encountered in related idioms, *ṅo-čui-ni* ("chair"), and *č'ui* ("nit"). The diphthong *iu* occurs only in the loan-word *liu-na* ("cabbage"); *ie*, in *t'ien-čo* ("loam-house") and *sie* ("following, next").

20. The triphthong *iao* occurs in *liao* ("blood") and *siao* ("to be born"). The existence of the triphthong *uai* seems to me doubtful (see No. 196).

21. The consonantal system of Si-hia is as follows:

k	*k*^{c}		*g*		*ṅ*
č	*č*^{c}		*j*		*ñ*
t	*t*^{c}		*d*		*n*
p	*p*^{c}	*f*	*b*	*w*	*m*
ts	*ts*^{c}		*dz*		
ž	*z*		*š*		*s*
y	*r*		*l*		*h*

This system coincides with Tibetan save the fricative *f*, which does not exist in Tibetan. All consonants occur as initials. No double consonants are found in our material. Only *ṅ*, *n*, *m*, and *r* are utilized as finals. A Si-hia syllable or word is therefore composed of initial consonant + vowel + *ṅ*, *n*, *m*, or *r*. Phonetic groups consisting solely of a vowel or diphthong or initial vowel + final consonant seem to be scarce.

22. Initial gutturals and palatals are capable of palatalization: *k'ä* or *g'ä* ("gold"), *k'ä-i* or *č'ä-i* ("true"), *gu-g'ä* ("phœnix").

23. Consonantal prefixes can be pointed out only in four cases: *k-ṅü* or *k-ṅu* ("five"), *k-ṅum* ("heaven"), *r-ni* ("ear"), and possibly in *m-ru*, *m-lu* ("worm," No. 22).

24. Si-hia is destitute of final *g*, *l*, and *s*, as compared with Tibetan and other languages:

la, hand = Tib. *lag*.
lo, sheep = Tib. *lug*.
dzei, *zei*, panther = Tib. *g-zig*.

wo, swine = Tib. *pʿag*.
ṅo, silver = Tib. *d-ṅul*, Mo-so *ṅö*.
na, barley = Tib. *nas*.
wu, centre = Tib. *dbus* (*wu*).
lu, body = Tib. *lus*.

25. Final *ṅ* is frequent in Si-hia: *čʿöṅ* ("mother"), *liṅ*, *riṅ* ("west"), *šaṅ-wei* ("shirt"), *yiṅ* ("star"), *taṅ-laṅ* ("quail"), *moṅ-tsi* ("fly"), *taṅ* ("to set," of the sun).

26. Si-hia final *ṅ* corresponds to Tibetan final *ṅ*:

yiṅ, light (in weight) = Tib. *yaṅ*.
liṅ or *riṅ*, great = Tib. *riṅ*, long.
niṅ, heart = Tib. *s-ñiṅ*.

27. Si-hia final *ṅ* corresponds to Tib. final *g*:

šaṅ, iron = Tib. *l-čag-s*.

28. Si-hia final *ṅ* corresponds to Chinese and Tibetan final *m*:

siṅ, heart, mind = Chin. *sim*, Tib. *sem*(*s*).

29. Final *n* appears in Si-hia *tsan* ("lungs"), *tsan* ("autumn"), *tan* ("to be").

30. Final *m* occurs in *rom* ("spring of water") = Tib. *kʿron-pa*, *kʿrom-pa*; *kṁum* ("heaven") = Tib. *gnam*.

31. There is only one instance of final *r* in Si-hia: *nir*, *nʿir* ("relatives") = Tib. *g-ñer*, *g-ñen*, *ñen*, *ñe*.

32. Si-hia *kʿ* corresponds to Tibetan *sk* in:

kʿia, magpie = Tib. *skya*.

33. *č* and *š* alternate in Si-hia and Tibetan:

či, flesh = Tib. *ša*.
šuo, water = Tib. *čʿu*.
šaṅ, iron = Tib. *l-čag-s*, Lepcha *ča*.

34. Si-hia *m* answers to Tibetan *m*:

mĩ, man = Tib. *mi*.
mo, fire = Tib. *mö*, *me*.

35. Si-hia *m* corresponds to Chinese *m*:

moṅ-tsi, fly = Chin. *moṅ* 蜢, gadfly.

36. Si-hia *ts* answers to Tibetan *ts*:

tsö, *Pantholops hodgsoni* = Tib. *tsö*, *g-tso(-d)*.

37. Si-hia *z* corresponds to Tibetan *ts*:

zi, grass = Tib. *tsa* (*r-tsa*).

38. Si-hia *y* answers to Chinese *y* (from *ṅ*) and Tibetan *ṅ*:

ya, goose = Chin. *yen*, Cantonese and Hakka *ṅan*, Fukien *ṅaṅ*; Tib. *ṅaṅ*, Burmese *ṅan*.

39. Si-hia *w* corresponds to Tibetan *b*, *p*ʿ:

wu, cow = Tib. *ba*.
wo, stomach = Tib. *p*ʿ*o*.

40. Si-hia *w* corresponds to Tibetan and Chinese *ṅ*:

wen, bad = Tib. *ṅan* (in Central Tibet *ṅem-pa*), Tromowa *ñen-po*, Chin. *ṅan* ("false, fraudulent").
wu, cow = Cantonese *ṅau*, Siamese *ṅoa* (*ṅ-woa*), but Tib. *ba*.

41. Si-hia *w* is the equivalent of Chinese *f*:

wu, father = Chin. *fu*.

MORPHOLOGICAL TRAITS.

1. The syllable *ni* appears at the end of several stems, so that it may be regarded as a suffix, used similarly to Tibetan *-pa*: *tsu-ni* ("rain"), *kʿiṅ-ni* ("summer"), *tsu-ni* ("man"), *ṅo-čui-ni* ("chair"), *ku-ni* ("flour"), *tsö-ni*, *jö-ni* ("town"). It occurs with a certain preference in the names of animals: *čui-ni* ("fox"), *tsö-ni* or *jö-ni* ("wild goose"), *ko-ni* ("owl"), *mo-ni* ("cuckoo"), *wu-ni* ("wild animals"), *čʿaṅ-ni* ("birds"). In the phrase *tsiṅ-ni* ("in time") it seems to have an adverbial function.

2. A suffix *-i* appears in *k'o-i* ("boot"), derived from *k'o* ("foot"); and in *ro-i* ("saddle"), from *ro* ("horse"). Thus it seems to imply the meaning of a covering.[1] Perhaps also *wu-i* ("backbone") may belong here, if the element *wu* bear any relation to *ńo*, *o* ("back").

3. The diminutive suffix *bu*, in the same manner as in Tibetan (from *bu*, "son"), seems to be employed in *pa-bu* ("daddy"). In *pan-bu*, *ban-bu* ("butterfly"), however, the element *bu* (= Tibetan *ɑbu*) means "insect."

SYNTACTICAL TRAITS.

I have nothing new to add to the observations of my predecessors along this line. Our vocabulary imparts only a few brief sentences which allow of no far-reaching inferences as to syntax. The main point in the construction of the Si-hia sentence, as already remarked by M. Morisse, is that the verb concludes the phrase, while it is preceded by both the direct and the indirect object. This feature is in striking agreement with Tibetan, and presents additional proof for the fact that Si-hia belongs to the Tibeto-Burman group. The position of the attribute, which may precede or follow the noun, is also in harmony with Tibetan. M. Morisse is presumably right in observing that the place of the adjective may be regulated according to certain rules of euphony analogous to those of French. The glossary offers certain fixed terms, as *pei wei* ("current year"), *sie wei* ("next year"), *yi wei* ("past year"), *sie niṅ* ("after to-morrow"), but *wei saṅ* ("sparrow," No. 149), *yaṅ hei* ("raven"), *tu hei* ("black bean"). In regard to the last, Mr. Ivanov remarks that the attribute is placed after the noun if terms of Tibetan origin are involved. I do not see why *tu hei* should be of Tibetan origin; both *tu* and *hei* are probably Chinese words (Nos. 96 and 182).

[1] A suffix with analogous significance occurs in Mongol *-bči*: *ebčigün* ("chest") — *ebčigü-bči* ("thorax"); *dalu* ("shoulder-blade") — *dala-bči* ("collar"); *bälgägüsü-bči* ("girdle").

CONCLUSIONS.

The preceding analysis leaves no doubt that the Si-hia language belongs to the Tibeto-Burman group of the Indo-Chinese family. It is more difficult for the present to assign to it an exact position within that group. It appears as a certainty that Si-hia is not a mere dialect of Tibetan, Tibetan being taken in the strict ethnographical sense. It is as distinct from Tibetan as is Lo-lo or Mo-so, and has peculiar characteristics by which it is clearly set off from Tibetan proper. To these belong the prevalence of the vowel *i* corresponding to Tibetan *a*, the predominance of diphthongs, particularly of *ou*, and the lack of final explosive consonants. In the latter trait, Si-hia agrees with Lo-lo and Mo-so. Further, it has a common basis with these two languages, as shown by the large number of coincident words. While the Si-hia vocabulary displays certain affinities with Chinese, on the one hand, and with Tibetan, on the other, there are numerous words that are not related to Chinese or Tibetan, but that closely agree with Lo-lo and Mo-so. A goodly proportion of these (sixteen, Nos. 67—82) meet with no counterpart in Chinese and Tibetan, and must be designated as formations peculiar to the Si-hia, Lo-lo, and Mo-so stock; while those words of the same stock, which are traceable to Chinese and Tibetan, exhibit a closer degree of relationship with one another than with Chinese and Tibetan. It must therefore be conceded that we are entitled to the uniting of Si-hia with Lo-lo and Mo-so into a well-defined group of Indo-Chinese languages, which for brevity's sake might be termed the Si-lo-mo group (by choosing the first syllable of each name). How this curious fact is to be explained from the standpoint of history is a question that is not yet capable of a satisfactory solution. Si-hia is a dead language, and the remains discussed on these pages come down from the end of the twelfth century; Lo-lo and Mo-so,

however, are known to us only in their present state. The missing links between Lo-lo and Mo-so on the one hand, and Si-hia on the other, must have existed in the territory of Sze-ch'uan (or may still survive there), but little of the aboriginal languages spoken in that region has come to our knowledge. One trail leads from the Si-lo-mo group to the Burmese, Assam, and Nepal languages; and another trail takes us to the T'ai group. Unsuspected relations between the various groups of languages are revealed; these may partially be of ancient date, partially may point also to a lively interchange of ideas in historical times. Among the characteristic traits of the Si-lo-mo branch, two are prominent: in distinction from Tibetan, a very limited number of consonantal prefixes; and in distinction from Chinese and Tibetan, the lack of final explosives. These two features may be illustrated somewhat more in detail.

The significance of the preceding investigation for a study of the historical grammar of Tibetan (and a language can be properly comprehended only if we grasp its genetic growth) is self-evident. In former days it was permissible, for instance, to compare such words as Tibetan *č'u* and Chinese *šwi* ("water"); but now we recognize that the two words, though certainly interrelated, are not directly comparable, each representing a different phase of development from a common root (see No. 37). The most signal result of our study is that many monosyllabic phenomena of the Tibetan language, which at first sight appear as indivisible stem-words and have indeed been taken as such by previous scholars, now turn out to be compounds contracted from two, three, and even four bases: compare *bya* (No. 32), *k'yim* and *lam* (No. 47), *sbrul* (No. 22), *rña-boň* (No. 7), *rta* (No. 8), *gaňs* (No. 38), *rluň* (No. 39), *rdzoň* (No. 47), *groň* and *k'rom* (No. 47), *lče* and *ljags* (No. 49), *agro* (No. 51), *mt'o* (No. 65), *stag* (No. 67). These examples demonstrate that it is our primary task to ascertain the history of Tibetan

words through careful analysis of their components, based upon comparative methods, before venturing direct comparisons of the word in question with the corresponding notions of cognate forms of speech. It is not good method, for example, to correlate Tibetan *spreu* ("monkey") with Burmese *myok* (*myauk*).[1] The Tibetan word is a secondary formation contracted from *spra-bu* (*bu* being a diminutive ending which affects the stem-vowel after the elision of *b*; *bya-bu* becomes *byeu*, *bye*; *lo*, "leaf" — *löu*, *lö*, "section of a book;" *mda*, "arrow" — *mdöu*, *mdö*, "arrowhead").[2] Judging from experience, the word *spra* certainly is not a plain stem-word, but, on the contrary, is a double or even a triple composition. Theoretically it should be analyzed into **sa-pa-ra* or *sa-pa-la*, and in fact we meet these single components in the Lepcha designation of the monkey, *sa-hu-pa-lá-p*. It is therefore improbable that Tibetan *spra* bears any relation to Burmese *myok*, which, on the contrary, is an independent word. In the same manner, Tibetan *skra* ("hair") has been evolved from **sa-ka-ra*, for in Aka we have *sa-kå* ("hair") and in Kachin *ka-ra* ("hair"); the element *sa* further appears in Kuki-Chin *sa-m* and Burmese *sa-n*. Tibetan *gru* ("boat") is developed from **ge-ru*, *ge-lu*: the two elements are transposed in Mi-ñag *lo-ge*; and the base **lu* occurs in Mo-so *lu*, *lö* ("boat"), Lo-lo of T^{c}ung River *lo*, Lo-lo-p^{c}o *li*, A-hi Lo-lo *li* and *li-zo*, Nyi Lo-lo *š-li*; Aka *lå*, Burmese *hle*, Kachin *hli*. In the languages of the illiterate tribes we naturally find older forms preserved; this is the case also in many Tibetan and Chinese dialects, as contrasted with the written languages and the standard colloquial forms now in use. When we compare Tibetan *bya-wo̓n* or *p^{c}a-wo̓n* ("bat") with Chinese *pien-fu* 蝙蝠, a word that refers to the same animal, no relationship between the two words is apparent; but if we fall back on the dialectic forms,

[1] E. Huber, *Bull. de l'Ecole française*, Vol. V, 1905, p. 326.

[2] See also A. Schiefner, *Mélanges asiatiques*, Vol. I, pp. 357, 358.

Tromowa *pᶜo-loṅ-da*, Sikkim *pᶜyo-loṅ-da*, and Hakka *pᶜo-fuk*, we begin to realize the identity of the first element in the Tibetan and Chinese compounds (compare also Sino-Annamese *bien* with Lepcha *bryan*).

Tibetan *r-mi-ba* ("to dream"), past tense *r-mi-s*, at first sight, seems to be a widely different formation from Chinese *moṅ* 夢 ("dream, to dream"); but the Tibetan noun *r-maṅ-lam* ("dream;" *lam*, "road;" of rare occurrence for *r-mi-lam*) at once prepares the connection. We further have Lepcha *moṅ* (*moṅ myon*, "to dream a dream") and Burmese *mak*. The final guttural surd in Burmese in lieu of the guttural nasal shows us the variability of the finals, and the Tibetan stem *r-mi* may raise the question whether the finals *ṅ* or *k* in their origin formed really part of the stem, or rather present subsequent formative additions. He who has carefully gone over the analysis of Si-hia words must have noticed that this problem presents itself in more than one instance. It has been said that Lo-lo has dropped all final consonants with the exception of all nasals;[1] it has been asserted also, and is generally assumed, that the final explosives *k*, *p*, *t*, in Chinese are inherent in the stem, and have been eliminated in the northern dialects. These suppositions, however, are by no means borne out by careful observation of the facts. In a number of cases, it is true, Chinese and Tibetan, as well as other cognate languages, agree as to their finals; for instance:

Chin. *čiuk* 竹, bamboo; Tib. *s-ñug*; Magar *huk*.
Chin. *dzak* 賊, brigand; Tib. *jag*.
Chin. *tuk* 毒, poison; Tib. *dug*.
Chin. *muk* 目, eye; Tib. *mig*.
Chin. *luk* 六, six; Tib. *drug*.

[1] E. Huber, *Bull. de l'Ecole française*, Vol. V, 1905, p. 325.

Chin. *čik* 織, to weave; Tib. *t^{c}ag.*

Chin. *swiet* 說, to speak; Tib. *b-šad.*

Chin. *šat* 殺, to kill; Tib. *b-sad.*

Chin. *kiap* 甲, armor; Tib. *k^{c}rab.*

In other instances, however, Tibetan is destitute of a final, whereas Chinese is provided with it:

Tib. *ągro*, Si-hia *k^{c}o*, Chin. *gu-k* (No. 51).

Tib. *ñi*, sun; Chin. *žit* 日.

Tib. *ko*, hide, leather; Chin. *kok* 革.

Tib. *za-ba* (*zo*, *b-zo-s*), to eat; Shanghai *zok* 食.

Tib. *l-če*, tongue; Chin. *džiet* 舌 (see No. 49).

Tib. *g-la*, Si-hia *la*, stag; Chin. *luk* (No. 31).[1]

Again, in other cases, Tibetan has a final, while Chinese is devoid of it:

Tib. *s-gog*, leek; Chin. *kiu* (see p. 96).

Tib. *zug-pa*, pain, *ądzug-pa*, to sting, prick; Chin. *dz^{c}u* 愁, to grieve.

Or, the finals differ in Chinese and Tibetan:

Chin. *šik* (Hakka *šit*) 識, to know; Tib. *šes.*

Chin. *dat* 達, to penetrate; Tib. *dar.*

Chin. *šit* 虱, louse; Tib. *šig.*

Chin. *džak*, *dzak* 作, to make; Tib. *m-dzad.*[2]

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[1] Compare also Tib. *ro*, taste; Siamese *rot*, taste.

[2] Final *m*, *n*, and *ń* are inherent in the stem:

Tib. *sem-s*; Chin. *sim* 心 (No. 9).

Tib. *śam*; Chin. *šam* 衫 (No. 100).

Tib. *ram-s*; Chin. *lam* 藍, indigo (Korean *ram*, Manchu *lam-un*).

Tib. *žon-pa*, to mount, ride; Chin. *džień* 乘.

Tib. *mań*, many, *dmań-s*, people, multitude; Chin. *moń* 氓, people, subjects.

Tib. *r-moń-ba*, to be obscured, stultified, *mun-pa*, obscurity; Chin. *muń* 蒙 and 懞, dull, stupid. Compare, however, *lu-ń*, dragon (No. 22).

The final consonants of Tibetan are by no means stable. SCHIEFNER [1] has already called attention to two phenomena,—parallel words with and without final consonants, and confusion of final consonants. This, however, is not an explanation of the phenomenon. Certain final consonants, as I endeavored to show on a former occasion, [2] were added as formative elements with a specific significance, or with a grammatical function which became lost in course of time. From *ko-ba* ("hide, leather") is formed *ko-g-pa*, with the meaning "shell, peel, rind." The word *kug* ("crooked"), identical with Chinese *kʿuk* 曲 and Burmese *kok*, appears also as *kum* and *koṅ*, while in Ahom it is *kut*, in Siamese *koṅ*. [3] In Ahom we have *lat* ("to speak"), in Tibetan *lab*. More examples will be found in the Appendix.

Within the Chinese language we find variations of the finals in Cantonese, Hakka, and Fukien:

Cantonese *yêt* 一, one; Fukien *eik*.

Cant. *pat* 八, eight; Fukien *paik*.

Cant. *yêt* 日, sun; Fukien *nik*.

Cant. *lip* 立, to stand; Fukien *lik*.

Cant. *lik* 力, strength; Hakka *lit*; Swatow *lat*.

Cant. *šik* 食, to eat; Hakka *šit*; Amoy *sit*; Shanghai *zok*.

Cant. *fat* 法, law; Hakka *fap*; Swatow *hwap*.

Cant. *tsat* 疾, disease; Swatow *čit*; Amoy *ček*; Fukien *čik*.

Cant. *šat* 室, room; Fukien *sek*; Shanghai *sak*.

Comparison shows us that Fukien has in some cases preserved

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[1] *Mélanges asiatiques*, Vol. I, pp. 346—348.

[2] *T'oung Pao*, 1915, p. 424.

[3] The primary root is **gug*, which is preserved in the Tibetan verb *a-gug-s* ("to make crooked, to bend"), corresponding to Chinese **guk*, *kuk* 局, and in Bunan *gur-gur* ("crooked;" analogous to Tibetan *kug-kug*). The final *t* appears also in Milčaṅ *kuta* ("crooked"), beside *kʿuṅ-šim*.

the ancient final *k*, whereas Hakka and Cantonese have exchanged it for *t*: Fukien *saik* ("louse") agrees with Tibetan *šig* in the final, where Cantonese has *šêt* and Hakka *sit* (No. 6).

If we now take Indo-Chinese philology in its widest range, we observe that vast tracts of its domain are occupied by languages which are destitute of any finals, and that the lack of finals even covers a larger geographical area than the area where they occur. The word for "tongue" (No. 49), for instance, possesses a final only in the South-Chinese dialects (*še-t*, *šu-t*, *sie-k*), while such is absent in all other languages of the family, notably in Tibetan (*l-če*). Examining the word *la* (No. 50), we note that Si-hia, Mo-so, Lo-lo, Kachin, and Nepalese are equally devoid of a final, while Tibetan has one in *la-g*; but Tromowa and Sikkim *la-ko* demonstrates that the Tibetan final *g* is not inherent in the stem, but the survival of a syllable *ko*, which was contracted with the base *la*. Hence it is reasonable to conclude that *la* presents the primary root-base, and that *la-g* denotes a secondary development. It is likewise obvious from the facts cited under No. 53 that the base of the word for "eye" is **me*, *mi*, not *mik* or *mit*. Not only is the number of languages without a final in this case very large, but also derivatives like Tibetan *s-mi-n-ma* and Chinese *mou*, *mei*, *mi* (No. 54) uphold this point of view.

The secondary character of final Tibetan *l* has been demonstrated in the case of *dňul* (No. 1), where *-l* corresponds to Chinese *-n* or *-ň*, and where the base is *ňu*, *ňü*, *ňo*; likewise in the case of *sbrul* (No. 22). The same holds good for *sbal* ("frog"), for we meet in Mo-so *pa*, in Burmese *p'ā*, in Nyi Lo-lo *a-pa-ma*, in Chinese *wa* 蛙. In *spre-l* ("monkey," from *spre*), *-l* is secondary.

There is accordingly no valid reason to regard the final consonants as the prior event and to construe a theory of their gradual elision in the light of a posterior move. It is not only conceivable, but it

is borne out by the data of many languages, particularly by the branch which interests us here, Si-hia, Lo-lo, and Mo-so, that there are Indo-Chinese idioms without final explosives. To my mind, these did not originally belong to the stem, but were subsequent formative elements. In this respect, the relationship between Chinese and Tibetan is closer than between these languages and the Si-hia, Lo-lo and Mo-so branch, which is essentially characterized by the lack of final explosives. As to Mo-so, compare, for instance, *bo* ("pig") – Tib. *p'ag*, *da* ("to weave") – Tib. *t'ag*, *nau* ("forest") – Tib. *nags*, *še-še* ("paper") – Tib. *šog*, *miö* ("eye") – Tib. *mig*, *du* ("poison") – Tib. *dug*, *be* ("to do") – Tib. *byed*, *p'e-le* ("butterfly") – Tib. *p'ye-ma-leb*, *ma* ("oil") – Tib. *mar*. As to Si-hia, see Phonology, § 24 (p. 103).

A similar observation holds good for the prefixes. There is no basis for the preconceived assumption that prefixes should once have been general in Indo-Chinese, that in view of an abundance of prefixes in some languages those with scanty or no prefixes should have lost them, and that the type of prefix-language is older than that devoid of prefixes. It seems certain that Chinese roots have never had any consonantal prefixes (the only instance of a Chinese prefix is the vocalic *a*).[1] In general we might say that those idioms which are destitute of prefixes at the present time were likewise so in the past. Si-hia sides with Lo-lo and Mo-so in the very limited number of prefixes;[2] and the mere fact that the prefixes of the

[1] See the writer's *The prefix A- in the Indo-Chinese Languages* (*J.R.A.S.*, 1915, pp. 757—780).

[2] The following examples of Mo-so words show lack of prefix, as compared with Tibetan: *k'o* ("door")—Tib. *sgo*, *pa* ("wolf")—Tib. *spyaṅ*, *kö* ("star")—Tib. *skar*, *pa* ("frog")—Tib. *sbal*, *ts'ö* ("lake")—Tib. *mts'o*, *dsö* ("to do")—Tib. *mdsad*, *ba* ("goitre")—Tib. *lba*, *či* ("tongue")—Tib. *lče*, *ńö* ("silver")—Tib. *dṅul*.

same words are variable within the Tibetan dialects, and again are at variance with the prefixes in the corresponding words of cognate languages, is apt to show that the prefixes represent a secondary stage of development.[1]

Prefixes as well as final consonants, therefore, are of minor importance in the comparative study of Indo-Chinese languages. The same may be said about the stem-vowels, which are likewise vacillating, although we may arrive at certain laws in course of time. The staff of comparison remains the initial consonant and the tone conditioned by it: these form the backbone of the word and the basis of all investigation. The tendency of the sonants to change into surds and aspirates has gradually modified the face of many root-words and obscured the mutual relationship of Chinese and Tibetan (compare, for instance, No. 143). The manner and degree of relationship in the Indo-Chinese camp, therefore, do not lie so clearly at the surface as in the Indo-European field. Strictly speaking, we first ought to elaborate the historical grammar of Chinese and Tibetan, taken individually, before attempting the comparative study of the two languages. Nevertheless, the one cannot well be accomplished without the other, and both efforts undertaken simultaneously and leading in the same direction will yield results to benefit and to advance both historical and comparative research of these languages.

[1] Compare the prefix *d* in Jyarun in cases where common Tibetan is without a prefix (*T'oung Pao*, 1914, p. 108).

APPENDIX.

In connection with the preceding observations, the following Chinese and Tibetan concordances may be of interest; these demonstrate at the same time that the relationship between the two languages is much closer than assumed heretofore. The first group here selected shows Tibetan words, most of them being provided with prefixes. The fact that these are of secondary character becomes evident from their absence in Chinese.

1. *kan* 乾, dry. Tib. *s-kam*, *s-kem*, dry. (Compare also **go*, *ko*, *k'o* 頦, chin; Tib. *ko-ko*, *ko-sko*, *kos-ko*, chin.)
2. **gaṅ* 岡, ridge of a hill, mound. Tib. *s-gaṅ*, a projecting hill.
3. *kaṅ* 槓, trunk, box. Tib. *s-gam*, chest, trunk, box.
4. **dzaṅ* 藏, granary. Tib. *r-dzaṅ*, storage-chest (West Tib. *zem*, box, chest).
5. **džam*, *dzam*, *dam* 參, to counsel, advise. Tib. *g-dam*, *ą-dam*, to advise, exhort.
6. **džam*, *dzam* 慚, to feel shame. Tib. *ą-dzem*, to feel ashamed.
7. **džiet*, *diet* 節, knots or joints of plants. Tib. *m-dud*, knot; *m-dze-r*, knot in wood; wart.
8. **džiet*, *diet* (Japanese *šitsu*) 櫛, a comb, to comb the hair; **šwat* 刷, brush, to brush. Tib. *šad*, *g-šad*, *g-šod*, to comb, curry, brush, stroke; *zed*, brush.
9. **džaṅ*, *dzaṅ*, *zaṅ* 曾, past, done, finished. Tib. *ą-dzaṅ-s*, *za-d*, spent, consumed, exhausted.
10. **džaṅ*, *dzaṅ*, *zaṅ* 層 (Shanghai *dzuṅ*, *zuṅ*), story of a building, layer. Tib. *b-zaṅ-s* (also *k'aṅ b-zaṅ*), a two-storied building; *ą-dzeṅ*, to project, to jut out.
11. **džan*, *dzan*, *zan* 粲, viands; 餐, to eat, a meal. Tib. *zan*, *b-zan*, food, porridge; *za*, to eat.

12. **zan* 嫉, beautiful. Tib. *b-zaṅ*, good, beautiful.
13. **džai*, *dzai* 材, stuff, materials; 財, property, wealth. Tib. *r-dza-s*, objects, materials, goods, property, treasures, jewels.
14. **dzuṅ*, *duṅ* 同, together, the same as, alike; 雙, a match for, a peer. Tib. *m-ts'uṅ-s*, similar, like, equal; a match for.
15. **dzuṅ* 聰, quick of apprehension, clever; 悤, intelligent. Tib. *m-dzaṅ-s*, wise. Regarding the change of vowel compare **dzuṅ*, *duṅ* 銅, copper, and Tib. *zaṅ-s*.
16. **dzin* 盡, exhausted. Tib. *zin*, exhausted.
17. **dže*, *dze*, *de* 砥, whetstone. Tib. *a-dze-ṅ*, whetstone.
18. **dzuṅ*, *duṅ* 鏦, javelin, to stab with a spear. Tib. *m-duṅ*, spear.
19. **džuṅ* 中, middle. Tib. *g-žuṅ*, middle.
20. **džu*, *du* 聚, to collect, to assemble. Tib. *a-du*, to come together, to assemble, to unite, to join one another.
21. **džwi*, *dzwi*, *zwi* 醉, intoxicated. Tib. *zi*, *b-zi*, *g-zi*, intoxication.
22. **džie* (Wen-chou *zi*, Ningpo *zie*) 射, to shoot, to aim at, archery. Tib. *g-žu*, bow.
23. **džie* (Hakka *sa*) 麝, musk-deer. Tib. *ša*, *šwa*, stag; *šwi*, newborn fawn.
24. *šö* (Hakka *ša*, Fukien *sia*) 社, personification of Earth. Tib. *sa*, earth.
25. **bun* 糞, ordure, dung. Tib. *brun*, dung, excrements.
26. **boṅ* 胖 or 肨, fat. Tib. *boṅ*, size, bulk; *s-bom*, thick, stout, coarse.
27. **bun* 氛, vapor, miasma, poisonous exhalations. Tib. *bem*, dead matter, a pestilential disease.
28. **bu* 舞, dance. Tib. *bro*, dance.
29. **bat*, *pat* 拔, lofty, eminent. Tib. *d-pal*, glory, splendor.
30. **bun* 墳, grave, mound. Tib. *a-bum*, tomb, sepulchre.
31. *pa* 疤, scar, birth-mark. Tib. *r-ma*, wound; *r-me*, *d-me*, *s-me*, natural mark, spot, mole, birth-mark.

32. **pa* 波, wave; Tib. *d-ba*, wave.

33. *pa* 霸, to rule by force; might, leadership. Tib. *d-ba-ṅ*, might, power, rule.

34. *pa* 笆, a kind of bamboo. Tib. *s-pa*, *s-ba*, cane; Lepcha *po*; Burmese *wā*; Kačāri *oá*; Ahom *bai*, cane, rattan; Shan *wai*; Thādo *wo*, *go*.

35. **wat* 曰, to say. Tib. *ą-bar*, to talk.

36. **dam* 毯, rug, carpet. Tib. *g-dan*, bolster, seat of several quilts; *s-tan*, mat, carpet, cushion.

37. **dam* 潭, pool, lake. Tib. *l-teṅ*, pool, pond.

38. **duṅ* 洞, hole, cave, grotto, ravine. Tib. *doṅ*, deep hole, pit, pitch.

39. **duṅ* 筒, tube, pipe, duct. Tib. *doṅ*, *l-doṅ*, tube; a hollow, cylindrical vessel.

40. **duṅ* 疼, pain, soreness, ache. 痌 or 恫, to moan with pain. Tib. *g-duṅ*, to desire, long for; to feel pain, to be tormented, afflicted.

41. **diṅ* 梃, stalk or grain; 梃, stalk, staff, cudgel; 莛, stalk of grasses and plants. Tib. *s-doṅ*, stalk of a plant, trunk of a tree, tree (Mūrmi *d'oṅ*, tree).

42. **diṅ* 靛, indigo. Tib. *m-t'iṅ*, indigo.

43. **do* 砣, heavy stone, stone roller, weight. Tib. *r-do*, stone, weight.

44. **duk* 督, to superintend, to direct, to rule. Tib. *b-dog*, to possess, to own; *b-dag*, master, lord, self; *b-dag byed-pa*, to reign, to possess.

45. **džek*, *zek*, *šek*, *sek* 石, stone. Tib. *g-seg*, small stones; *šag*, pebbles, gravel.

46. *t'o*, *t'u* 唾, to spit, saliva. Tib. *t'u*, *t'o-le*, to spit.

47. *leu* 簍, basket. Tib. *s-le*, *le*, basket. (Compare also *lei* 儡, lazy, and Tib. *le-lo*, lazy.)

48. *luṅ* 愣, stupid. Tib. *b-lun*, dull, stupid.

49. **dži*, *dzi*, *dza* 瓷, 磁, pottery. Tib. *r-dza* (West-Tib. *za*), clay.

50. *tsi* 漆, lacquer. Tib. *r-tsi*, varnish, paints.

51. **hap* 呷, to swallow. Tib. *hab*, a mouthful; *hab-hab za-ba*, to devour greedily.

Chinese final explosives correspond to a Tibetan liquida:

52. **g'ap* 俠, heroic, bold; **dž'ap*, *dz'ap* 捷, to gain a victory in battle. Tib. *r-gyal*, to be victorious, victory, king.

53. **g'ap* 夾, to squeeze, to press. Tib. *b-čer*, *b-čir*, to squeeze, to press.

54. **get* 訐, to accuse. Tib. *a-gel*, *r-gol*, to accuse.

55. **džo*, *dzo*, *džak*, *dzok* 錯, to err, to make a mistake. Tib. *a-dzol*, fault, error, mistake; *r-dzu*, delusion; *r-dzu-n*, falsehood.

56. **džik*, *džek* (Canton *ts'ek*) 蒺, thorn, to prick. Tib. *ts'er*, thorn, prick, brier.

57. **wat* 曰, to say. Tib. *a-bar*, to talk.

**džiet*, *diet* 節, knot. Tib. *m-dzer*, knot in wood (see No. 7).

58. **dat* 達, to pass through, to penetrate. Tib. *dar*, to be diffused, to spread. See also No. 29.

Final explosives in Chinese where Tibetan has none:

59. **džip*, *dzip* (Ningpo *dzi*) 睫, eye-lashes. Tib. *r-dzi*, eye-lashes.

60. **džu-k*, *dzu-k*, *zu-k* 畜, to feed, nourish, rear. Tib. *a-ts'o*, *g-so*, to feed, nourish, rear, cure.

61. **ku-t* 掘, to dig out, excavate. Tib. *r-ko*, to dig, dig out, hoe, engrave.

Final explosives or liquidæ in Tibetan where Chinese has none:

62. **giao* 膠, glue. Tib. *r-gya-g*, glue.

63. **giao* 交, to unite, friendship. Tib. *gro-g-s*, friend; *a-gro-g-s*, to be associated.

64. **giao* 絞, to bind, to twist. Tib. *s-gro-g*, cord, rope, feathers.

65. **giao* 叫, to call out. Tib. *s-gro-g*, to call out, to proclaim.

66. *kiao* 皎, the bright white moon; effulgent. Tib. *b-kra-g*, brightness, lustre.

67. *džo, *dzo, zo* (Shanghai *zu*) 坐, to sit. Tib. *s-do-d, b-žu-g-s*, to sit.

68. *džai, dzai, zai* 纔, just now, then. Tib. *g-zo-d*, now, this moment.

69. *zai, ts'ai* 猜, to guess (猜謎, to guess a riddle). Tib. *ts'o-d*, estimation, guess; *ts'od šes, ts'od bya*, riddle.

70. *tš'ai, ts'ai* 菜, vegetables. Tib. *ts'o-d*, vegetables.

71. *džai, dzai, dzoi, čai* 裁, to cut off (but *čöt* 截). Tib. *g-čo-d*, to cut.

72. *giai* 解, to loosen; to explain; to get free from. Tib. *a-gro-l*, to be released from; to loose, untie, release; to explain; *s-gro-l*, to rescue, deliver. As to the initial guttural with following *r* or *l*, compare Tib. *sgro*, large feather for ornamenting arrows, as a charm, etc., with Chinese **gio* 翹, long-tail feathers used as ornaments; Tib. *sgro*, to elevate, exalt, *sgrob*, haughtiness, pride, with Chinese **gio* 翹翹, high, elevated, 喬, high, stately, proud; and Tib. *gleń*, to talk, to preach, with Chinese **giaň* 講, to talk, to preach.

73. **giai, kai* 偕, to accompany. Tib. *s-kye-l*, to accompany.

74. **gia, ga, ge* 跏, to sit cross-legged. Tib. *s-kyi-l*, to sit cross-legged.

Chinese final nasals correspond to Tibetan liquidæ:

75. **zan* 燦, bright, glittering. Tib. *g-zer*, ray, beam; *zil*, brightness; *a-ts'er*, to shine, glitter.

76. **džam, dzam* 慘, grieved, sad; 憯, to be sorrowful. Tib. *g-zer*, pain, ache, illness; to feel pain; *a-ts'er*, to grieve, grief, sorrow.

77. **džam, dzum, dziem, zam* 鏨, to pierce, cut, chisel out, engrave; 鑽, to bore a hole, to pierce; Tib. *g-zer*, to bore into; *zer*, to drive in nails; *g-zer*, nail; *g-zoń*, chisel, graving-tool.

78. **kwon* 勸, to admonish. Tib. *s-kul*, to admonish.

79. **kwon* 圈, circle. Tib. *s-kor, a-k'or, s-gor*, circle.

The following comparisons are instructive both as to the finals and initials of the words:

80. **džien, dzien* 剪, to cut with scissors or shears. Tib. *čem-tse*,

scissors; *ts'em-pa*, tailor; *ts'em-po*, seam; *a-ts'em*, *b-tsem-s*, etc., to sew.

81. **k'em*, *k'im* 衾, coverlet, quilt. Tib. *k'eb-s*, *k'yeb-s*, cover.

82. **zuṅ*, *suṅ* 雙, a pair, couple. Tib. *zuṅ*, a pair, couple.

83. **dza-k* 作, to make. Tib. *m-dza-d*, to make.

84. **džuk*, *dzuk*, *dzok* 足, to be sufficient. Tib. *č'og*, to be sufficient.

85. **bik*, *p'ak* 甓, tile. Tib. *pag*, brick.

86. **dzok*, *zok* 鑿, to chisel out, to bore into. Tib. *a-dzug-s*, *zug*, to prick, sting, pierce, bore.

87. **džiek* 食, to eat. Tib. *b-žes*, *b-za*, food.

88. **džan* 殘, to injure, to destroy. Tib. *a-jom-s*, to conquer, to destroy.

89. **giao* 狡, crafty, clever. Tib. *s-gam*, *s-grin*, clever.

90. **giao* 較, to compare. Tib. *s-grun*, to compare.

91. **l'äp* (Canton *lip*) 獵, to hunt. Tib. *liṅ-s* (probably from **lim-s*), hunting, chase. Lepcha *lyŭm mat*, to hunt (*lyŭm*, the god of hunting).

92. **džai*, *dzai*, *dzoi* 彩, color, gay-colored, ornamented. Tib. *b-tso*, *a-ts'o-d*, to dye; *ts'o-s*, *ts'o-n*, paint, dye; *b-tsa-g*, red ochre, earths of different color.

93. **džok*, *džak*, *dzak* 昨, yesterday. Tib. (*k'a*)-*r-tsaṅ*, *m-daṅ*, yesterday.

94. *yaṅ* 颺, to be tossed about, as by wind or waves. Tib. *g-yeṅ*, to be moved by the water to and fro.

95. *yaṅ* 揚, to raise, to hold up, to praise. Tib. *g-yaṅ*, happiness, blessing. Shan *yåṅ*, to praise; Ahom *jåṅ*, fame, glory.

96. **lok* 烙, to burn, roast. Tib. *s-reg* (West-Tib. *š-rag*), to burn, to roast. The Tibetan stem is **ra*, *re*, *ro*: compare *s-ro*, heat, to make warm; *d-ro*, hot time of the day; *d-ro-ba*, *d-ro-n-ma*, warm, *d-ro-d*, warmth; Bunan *ko-s-ra*, hot; Ahom *rau*, *raw*, *rå-n*, heat.

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Addenda. — Two valuable studies of Chinese scholars have meanwhile reached me, — a Dissertation on the national writing of the Si-hia 西夏國書略說 by Lo Fu-ch'ang 羅福萇 (accompanied by good reproductions of Si-hia Antiquities) and an Investigation on the Si-hia translation of the Saddharma-puṇḍarīka-sūtra (p. 4) 西夏譯蓮華經考釋 by Lo Fu-ch'êng 羅福成.

P. 12. In the language of the Min-kia, *a* is the numeral 1 (LIÉTARD, *Anthropos*, Vol. VII, 1912, pp. 678, 692).

P. 112. The following may be added to the base **gug* ("crooked, bent"): **giok* 角 ("horn"), **g'uk* 毬 ("leather ball"), **gou* 句 ("crooked"), **gou* 疴, "hunchback" (corresponding to Tibetan *gye-gu*, "hunch, hump"). Compare also CONRADY, *Causativbildung*, p. 168.

in remembrance of his pilgri
to Detroit August 7th and
from B. Lau

THE SI-HIA LANGUAGE

A STUDY IN INDO-CHINESE PHILOLOGY.

BY

BERTHOLD LAUFER.

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